

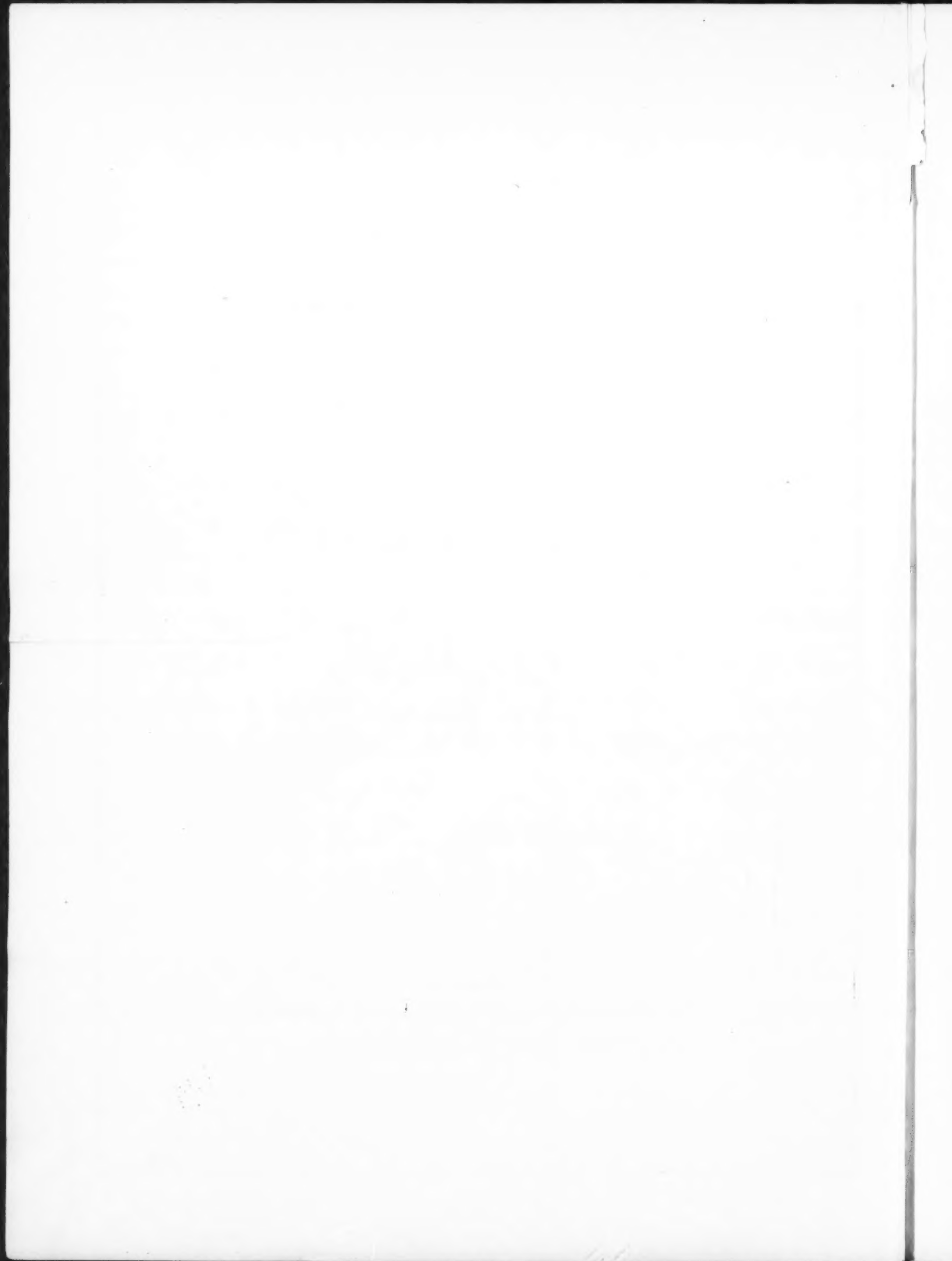
Mechanical Engineering

The Journal of the American Society
of Mechanical Engineers

Index to Volume 48

January—December
1926

Published by
The American Society of Mechanical Engineers
29 West Thirty-ninth Street, New York



Index to Mechanical Engineering

Volume 48, January—December, 1926

D denotes Discussion; C, Correspondence; C. T., Conference Table

A

- ABBOTT, W. L. Progress and prospects in mechanical engineering, foreword to account on 1407
- Abbreviations, symbols and, doings of committee on 381
- ABELE, J. B. Bolts for use in power-plant construction (D) 501
- Abrasion and corrosion, rubber as a resistant to 844
- Accelerometers 1148
- Accident toll and its cost, the annual 764
- Acidity in lubricating oils 1148
- ADAMS, EDWARD DEAN, guest of honor at Engineering Foundation dinner 769
- receives John Fritz Medal 533
- John Fritz Medal awarded to 285
- Adhesives 847
- ADLER, ALPHONSE A. Industrial-boiler efficiencies (D) 928
- Aero engines, Napier-Lion 1460
- Aero-engine endurance test 508
- progress, supercharging 1461
- Aerofoil, U.S.A.-27 with square wing tips—model tests, pressure distribution over a 1401
- Aerofoils 264
- Aeronautic safety code approved as U.S. national standard 282
- Aeronautical education, grants to, by Daniel Guggenheim fund 1069
- Aeronautics, American, a review of, in 1925 Aircraft Year Book 86
- commercial, in Michigan 161
- American, progress, editorial 970
- progress in 309, 1432
- Air and hydrogen, heat conductivity in 621
- and steam, flow in pipes 1025
- and the diatomic gases O₂, N₂, and CO, a temperature-entropy diagram for 1329
- bubble rising in water 166
- combustion, preheating 852
- compression, hydraulic, experimental investigation of 888
- compressor, Hele-Shaw Beacham 53
- cooling in an office building 1469
- drying by silica gel 1061
- flowing, heat transfer from, to tubes and tube nests 1155
- furnace with underfeed stoker 613
- "gulp" regulating valve 272
- heater 168
- heating device exposed by B.T.U. Society 532
- humid, as a heat medium 755
- in boiler furnaces, limiting factors in reducing excess 703
- inlet valves, pipe-line 467
- mail, operation and possible application to commercial operations 465
- Ministry Laboratory 616
- preheater, Perry 853
- preheaters, comparative performance of 562
- preheating 759
- preheating for boiler furnaces (C. T.) 1162
- transport costs (C.T.) 1162
- transport, future of 761
- transport program, Ford 263
- transportation 370
- Aircraft construction, fusion-joining of metallic materials in 1240
- engine, Pobjoy 1466
- engines, gas-starter system for 1460
- in naval warfare, editorial 1069
- industry, British 1460
- inquiry, President's, excerpts from report 83
- oil-injection engines for, research on 1123
- testing metals for 124
- Year Book, 1925, book review 86
- Airplane and engine life 1050
- engine manufacture 578
- fabrics, tests of 172
- structures and air propellers, interaction between 1050
- tailless 751
- Airplanes and engines maintenance and depreciation of 574
- small 1460
- Airship, Zeppelin, safety of 115
- Airways, commercial, special weather reports for, note 1403
- AITON, J. A. 1469
- A.L.A. Committee on library extension, tentative findings of 774
- Albatros flying boat on wheels 370
- ALBERT, C. D. A system of limits for different kinds of fits (C) 279
- ALCOCKS, A. U. 514
- Alcohol, power 55
- Alden hydraulic laboratory enlarged 634
- turbine-condenser expansion gasket 1467
- ALDEN, V. E. Development of a unit coal pulverizer (D) 463
- ALDRIN, E. E. Progress in aeronautics 309, 1432
- The airship and its place in commerce (D) 577
- ALEXANDER, P. 515
- ALFORD, L. P. Materials-handling problems and their solution (D) 483
- Safety in American industry 640
- ALLISON, V. C. 1051
- Alloy steels, machinability of, note on 709
- Alloys, various, effect of, on growth of cast iron under repeated heatings 1174
- Altinkirch refrigerating machine 1060
- Alternators. See Turbo-alternators.
- Altitude biplane, McCook Field 263
- Aluminum industry, American, in Canada 173
- American aluminum industry in Canada 173
- American Association for the Advancement of Science, Kansas City meeting of the 179
- American Engineering Standards Committee, informal conference of 534
- Year Book of 1062
- American Institute of Mining Engineers, annual meeting of the 393
- American Society of Steel Treaters convention, A.S.M.E. machine-shop practice session at the 1173
- American Society for Testing Materials Committees in Providence, group meeting of 534
- American Year Book, book review 642
- Ammonia compressor, magnetic valve for 372
- condenser, vertical shell-and-tube-type 1152
- investigations of properties of, note on 138
- synthetic 217
- ANDERHUB, W. 272
- ANDERSON, ALEXANDER C. 1467
- ANDERSON, HAROLD. Auxiliaries for motor vessels—II (D) 830
- Higher steam pressures in the industrial plant (D) 470
- Production control in newsprint industry (D) 52
- Selecting a power and heat supply for industrial plants (D) 807
- Anglo-American conference on screw threads 381
- Annealing process, heat-treating and, Snead electric 59
- Annual Meeting of A.S.M.E., 1926, note on 1170
- Anrep (machine peat process) 953
- Anti-knock coefficient 614
- materials 614
- motor fuels from shale oils 1052
- Apparatus, test code on instruments and 382, 517
- Applied elasticity, book review 294
- Apprentice training 1110
- Apprenticeship, has the need for it passed? 406
- in the building trades 111
- plan, Santa Fé, note on 908
- system, a self-supporting, note on 114
- system district 885
- Apprentices, education and training of, on Pacific Coast 686
- A.R.A. 856
- A.R.E.A. 856
- Arc welding for building construction, note on 950
- Archimedes screw pump, mercury compressor evolved from 1228
- Argyll-Continental engine 511
- ARMITAGE, J. B. A Handbook of Automotive Standards, book review 975
- Armour Institute to merge with Northwestern University 285
- ARMOUR, JAMES W. Industrial boiler efficiencies (D) 926
- Arte de los Metales, El 750
- Ash-characteristic curves 1465
- Ashley Street station, powdered coal for 291
- A.S.M.E. Boiler Code Committee, work of the 66, 175, 276, 529, 629, 767, 969, 1166, 1478
- A.S.M.E. Annual Meeting, forty-sixth (1925) 67
- Aeronautics session 74
- Business meeting—progress reports 69
- Calculation methods session 72
- Centrifugal compressors session 72
- Committees 71
- Council Meetings 69
- Design session 75
- Education and training for industries of the non-college type session 73
- Excursions 68
- Exposition of power and mechanical engineering 75
- Industrial furnace session 72
- Industrial power session 71
- Industrial psychology session 75
- Local sections' delegates conference 69
- Lubrication session 74
- Machine-shop practice (Session I) 70
- Machine-shop practice (Session II) 72
- Management session 74
- Materials handling session 73
- Oil and gas power session 70
- Power-plant materials session 74
- Presidential address and award of honorary membership 67
- Public hearing on power test code for steam turbines 71
- Social program 68
- Springs session 73
- Steam power session 74
- Steam properties research session 73
- Student branch conference 69
- Technical committee meetings 88
- Towne and Thurston lectures 67
- Wood industries session 71
- A.S.M.E. machine-shop practice session at the A.S.T. convention 1173
- meetings, better, editorial 76
- A.S.M.E. New England meeting in Providence 638
- Apprenticeship training session 639
- Council meeting 638
- Entertainment events 638
- Excursions 638
- Industrial power session 640
- Pressed metal session 641
- Small-parts manufacture session 639
- Wood industries session 640
- A.S.M.E. Providence and San Francisco meetings of, note on 392

- A.S.M.E. research contribution to industry.... 1073
 Special Research Committee on boiler-furnace refractories, progress report of.... 1115
 A.S.M.E. Spring Meeting at San Francisco.... 867
 Business meeting.... 868
 Conference on A.S.M.E. Boiler Code.... 870
 Council meeting.... 867
 Entertainment events.... 868
 Fuel and railroad session.... 869
 Hydraulic session.... 870
 Industrial training and education session.... 869
 Oil- and gas-power session.... 870
 Petroleum session.... 869
 Special tour.... 869
 Thirty-four years ago.... 870
 A.S.M.E. Spring Meeting committees.... 869
 Entertainment committee.... 869
 Excursions.... 869
 Executive committee.... 869
 Finance committee.... 869
 Hotel committee.... 869
 Information and registration committee.... 869
 Ladies' entertainment committee.... 869
 Ladies' reception committee.... 869
 Printing and signs committee.... 869
 Publicity committee.... 869
 Reception committee.... 869
 Technical events committee.... 869
 A.S.M.E. Spring meeting program, 1926.... 694
 Army parachute, standard, development and construction of the.... 1234
 Asquith drilling machine.... 58
 ASTBURY, G. T.... 508
 ATHERTON, D. H. Fluid flow in pipes of annular cross-section.... 1112
 Atlantic City, railway machine tool exhibition at.... 730
 Atmosphere, keeping it clean, editorial.... 388
 Atomic mechanics. Address of Robt. A. Millikan.... 867
 Atomic-hydrogen welding process.... 515
 Atomization methods for oil burners.... 1052
 Atomized coal.... 266
 ATTENDU, ANDRE C.... 372
 Attenu heavy-oil engine.... 371
 Auto parts, steel, plating with chromium.... 582
 Autogenously and electrically welded boilers and containers.... 603
 (D).... 967
 Autogyro (flying machine).... 264
 Automatic screw machine, Swiss.... 373
 Automobile engine, demountable Ryan monoplane with.... 1050
 exhaust gases, carbon monoxide and, note on fuels, volatility of.... 771
 train with mechanical drive.... 760
 Automotive fuels.... 771, 1464
 Standards, a Handbook of.... 975
 worm gearing.... 771
 Auxiliaries for motor vessels—I.... 715
 Aviation, civil, Guggenheim fund to promote.... 282
 civil, meeting at Philadelphia.... 1070
 in the United States, civil.... 1092
 Soviet.... 1461
 AYER, J. H. Development of tap-drill sizes (D).... 639
- B**
- BABCOCK, C. L. Refinements in woodworking-machinery design.... 415
 BACH, C.... 513
 BACH, GEO. W. Industrial boiler efficiencies (D).... 927
 Baden-Baden, the rotorship.... 632
 BAILEY, CHARLES F. Apprentice training.... 1110
 BAILEY, E. G. CO₂ and excess air (C).... 1064
 Limiting factors in reducing excess air in boiler furnaces.... 703
 BAIN, H. FOSTER. Coal-mine mechanization (D).... 461
 BAIRSTOW, PROF.... 264
 BAK, A. K. Recent developments at the Colfax Station (D).... 572
 BAKER, R. H.... 1468
 Baldwin three-cylinder locomotive.... 1469
 Ball bearings and roller bearings on railway cars, note on.... 355
 Ballistics, interior, experiments in.... 819
 Bantlin.... 63
 Bar steel, cold drawing of.... 448
 Barbara, rotor vessel.... 849
 Barge model, study of the effect of end shape on towing resistance of.... 833
 BARINGOLZ, M.... 1148
 BARKER, PROF.... 62
 BARNES, JOHN W.... 849
 BARNHURST, H. G. Higher steam pressures in the industrial plant (D).... 470
 BARR, WM. M.... 855
 BARRE, H. A. Water power and steam power in California utilities.... 662
 BARRINGER, E. C.... 54
 BARRUS, GEO. H. Industrial boiler efficiencies (D).... 926
 BARTH, C. G. The making of special slide rules (D).... 593
 Basel power conference.... 972
 Basic science, editorial.... 176
 Bates pump.... 272
 BATO, A. A. Flue-gas computations.... 330
 Radiation in boiler furnaces (D).... 138
 BATTEY, PAUL L. Layout and equipment of industrial power plants.... 291
 BAUD, R. V., and TIMOSHENKO, S. The strength of gear teeth.... 1105
 BAUER, A. D.... 1051
 BAUMANN.... 64
 BAXTER, W. W.... 169, 170, 375
 BAYLIS, JOHN R. Effect of temperature on liberation of hydrogen gas by corrosion of iron and zinc.... 1133
 BAYNTON, R. S. The design of high-pressure industrial power plants.... 1039
 BEACHAM, T. E.... 53
 Beacham Hele-Shaw air compressor.... 53
 BEARCE, GEORGE D. Production control in the news-print industry.... 48
 Closure to above paper.... 52
 Bearing, Michell, lubrication of.... 1467
 split, boring as a unit (C. T.).... 1163
 Bearings, oil film in, charts for studying.... 128
 tapered-roller (C).... 861
 BEHRMAN, A. S.... 959
 Boiler-water conditioning (D).... 326
 BEILBY, SIR GEO.... 55
 BELL.... 268
 BELL, WM. C. Interconnections in Virginia and North Carolina.... 1036
 Belt rivets, small rivets, and plow bolts, tentative American standards for.... 1480
 Belting, Leather, Exchange Foundation.... 616
 Belts, capacity under operating conditions.... 616
 tension ratio and transmissive power of.... 240
 Bending stress, repeated.... 1149
 BENJAMIN, C. H. Open-side machine frames (C).... 860
 BENNETT, J. A. Recent developments at Colfax Station (D).... 571
 BENOIT, A. W. Power for textile mills (D).... 127
 BERGER, L. B., SHERMAN, RALPH A., and RICE, W. E. Refractories.... 1389
 Bergius process.... 510, 954
 BERRY, H. R.... 960
 Beryllium.... 265, 380, 1462
 BEYER, D. S. Safety in materials handling.... 475
 Bibliography, progress report of sub-committee No. 9 on.... 1373
 Bickerton, Mirrieles, and Day marine Diesel engine.... 271
 Bielefeld experimental compound Diesel engine.... 848
 BIELEFELD, F. ERNST.... 848, 1054
 Bi-flow power plants, diphenyl oxide.... 815
 BIGELOW, C. H. Higher steam pressures in the industrial plant (D).... 470
 Industrial furnaces (D).... 358
 Power for textile mills (D).... 127
 BILHUBER, P. H. Recent advances in method of glue evaluation (D).... 352
 Biplane, altitude, McCook Field.... 263
 BIRKHAUGH, K. E. Carbon dioxide as an index of fatigue (D).... 495
 Birmingham, University of.... 54
 Bisynchronous motor.... 1461
 Bituminous coal, complete gasification of.... 1213
 Bitterli.... 269
 BLACK, ARCHIBALD. Airship and its place in commerce (D).... 577
 civil aviation in the United States.... 1092
 Technical progress in aeronautics (D).... 316
 BLACK, R.... 266
 Blackburne Thrush light-plane engine.... 270
 BLAKE, A. E.... 847
 BLAKESLIE, S. W. Coal-mine mechanization (D).... 461
 BLAU, ERNST, PROF.... 852
 BLAUVELT, WM. HUTTON.... 162
 The distillation of coal.... 1210
 Bleeding, main unit.... 759
 Bliss "cluster" rolling mill.... 620
 Blow-off, boiler, Wylie-Wilson process of.... 1151
 BLUM, J. K. Development of a unit coal pulverizer (D).... 463
 BOCK, THOMAS. The Savinius wing rotor (C).... 1479
 BOCKUS, C. E. Coal-mine mechanization (D).... 461
 Boiler and stoker performance at Hell Gate power station.... 1011
 blow-off, Wylie-Wilson process of.... 1151
 capacity, doubling.... 957
 capacity, the "therm" as a unit of (C).... 624
 construction code, revisions and addenda to.... 626, 1166, 1474
 drums.... 618
 efficiencies, industrial.... 412, (D) 926
 equipment, new, at Interborough Rapid Transit Co.'s 59th St. power station.... 246
 explosion on S.S. *Mackinac*.... 286
 feedwater, extensive research on, now in progress.... 287
 feedwater, pretreatment of.... 1361
 -feedwater studies, joint research on.... 1361
 flues, pitting and corrosion in.... 167
 furnaces, air preheating for (C. T.).... 1162
 furnaces for pulverized fuel, design of, combustion volumes in.... 754
 furnaces, limiting factors in reducing air in.... 703
 furnaces, radiation in.... 133, 218
 head, dished, resistance and distortion of.... 512
 high-pressure, cost of.... 618
 industrial efficiencies, discussion on.... 926
 locomotive, heat transmission in.... 1048
 locomotive, water-tube, McClellon.... 376
 performance, checking, by use of steam traps.... 167
 pitting, locomotive.... 375
 plant, modern.... 369
 plates, cracking of, note on.... 16
 -shell and firebox drilling machine.... 58
 -shell practice, German.... 956
 steam-, problem of corrosion in.... 1017
 tests, credibility of.... 377
 tubes, slagging of (C. T.).... 1162
 -water conditioning with special reference to high operating pressure and corrosion.... 317
 water, foaming and priming of, present knowledge of and suggestions for research.... 1364
 waters, potentiometric determination of hydrogen-ion concentrations as applied to.... 1129
 water-tube, McClellon type.... 856
 Boiler Code Committee, A.S.M.E., John A. Stevens appointed as honorary chairman.... 80
 work of the. See A.S.M.E. Boiler Code.
 Boilers and containers, autogenously and electrically welded.... 603, 967
 caustic embrittlement in, data wanted on.... 532
 compound and composite, power plant with.... 619
 firing, complete gasification of coal for.... 509
 furnaces and.... 759
 high-pressure, German.... 512
 locomotive, pitting and corrosion in.... 855
 marine, mercury-vapor.... 59
 mercury-vapor, marine.... 59
 Tosi vertical-tube.... 614
 waste-heat, in steel mills.... 1031
 water-tube, high-pressure, for marine purposes.... 617
 Yarrow.... 617
 Bolometer.... 611
 Bolts and nuts and wrench openings, tentative American standard for wrench-head.... 537
 and nuts, international conference of experts on standardization of.... 623
 and T-slots, basis for determining the proportions of standard.... 838
 for use in power-plant construction, discussion on.... 500
 heat-treated.... 955
 plow, tentative American standards for.... 1480
 stresses on—nut dimensions—wrench design.... 919
 BONE, WM. A.... 1146
 BONFORTE, JOHN. Development and construction of the standard army parachute.... 1234
 Book Reviews and Library Notes.... 86, 186, 294, 395, 539, 642, 775, 871, 975, 1074, 1179, 1491
 BOORD, CECIL E.... 615
 Boring machine, Stern-Bush.... 849
 Boston & Maine cinder plant.... 761
 Edison Co., 1200-lb. unit of.... 851
 Bottles, milk, testing and effect of design of bottle head upon breakage.... 597
 BOWEN.... 612

- BOYD, 614
 BOYD, W. W. Bolts for use in power-plant construction (D)..... 502
 BRABBE, DR. CHAS. 1470
 BRACKETT, F. ERNEST..... 1057
 Brakes, railway, investigation of 285
 BRANCKER, SIR W. SEPTON..... 265, 761
 Bricks, refractory, expansion of..... 633
 Bridge, Forth..... 509
 Menai, tubular..... 509
 BRIERLY, R. C. 755
 Bringhenti device (steam from subterranean heat)..... 375
 British aircraft industry..... 1460
 Electrical and Allied Industries Research Association..... 1154
 Fuel Research Board..... 54
 Royal Coal Commission, report of the..... 434
 BRODLO, B. N. Radiation in boiler furnaces..... 133
 Mechanical engineering in the cracking, heating, and cooling of oil..... 673
 BROMBACHER, W. G. Phosphor-bronze helical springs from standpoint of precision instruments..... 488
 BROMLEY, CHARLES H. New methods of lubricating steel-mill machinery..... 1344
 Brooklyn Polytechnic Institute, Dr. Parke Rexford Kolbe inaugurated as president of... 284
 BROOKS, H. W. 754
 By-product processing of coal..... 233
 Industrial furnaces (D)..... 358
 The "therm" as a unit of boiler capacity (C)..... 624
 BROWN, FOSKETT..... 756
 BROWN, G. H. Expansion of refractory bricks..... 633
 BROWN, R. L. 1464
 BROWN, W. 57
 BROWNE, F. L. Wood finishing—a glance ahead..... 1286
 BROWNLIE, DAVID..... 512, 613
 BRYAN, M. K. Selecting a power and heat supply for industrial plants..... 567
 BRYANT, T. C. Development of tap-drill sizes (D)..... 640
 B.T.U. Society exposes air heating device..... 532
 BUCH, ALFRED..... 1150
 BUCKENDALE, L. R. Automotive worm gearing..... 771
 BUCKINGHAM, EARLE. Influence of design on production..... 442
 BUDGEN, H. P. 1149
 Buell pulverized coal burner..... 164
 Building construction (C. T.)..... 1473
 construction, arc welding for..... 950
 Building, office, air cooling in..... 1469
 trades, apprenticeship in..... 111
 BULL, R. A. Heat-treatment data on quality steel castings (D)..... 500
 Bunkers on railroad cars, divided-basket..... 1058
 Bureau of Standards, report of progress in steam research at the..... 152
 BURKE, H. M. Industrial boiler efficiencies (D)..... 927
 Mechanical and material research in management (D)..... 750
 Selecting a power and heat supply for industrial plants (D)..... 806
 BURKHARDT, O. M. The causes of wear and corrosion in engines..... 771
 BURLINGAME, LUTHER D. Basis for determining the proportions of standard T-slots and bolts..... 838
 Burner, Buell pulverized coal..... 164
 Burners, oil, atomization of..... 1052
 BURNS, R. W. Design and application of clamp carriers for wood gluing..... 427
 Burt-McCollum single sleeve-valve engine..... 511
 BURTON, C. A. Materials-handling problems and their solution (D)..... 482
 Bus service, oil engine for..... 848
 Buses, why people use..... 1156
 Business Problems, Investigation of, book review..... 975
 BUTT, HOWARD. Industrial furnaces (D)..... 357, 359
 By-product processing of coal..... 233
- C**
- CABAUD, R. 620
 Cadet engineers, welcome to the, editorial..... 768
 Cadmium, protection of iron by..... 508
 Calculation, graphical methods of, discussion on..... 592
 California, development of the shale-oil industry in..... 731
 utilities, water power and steam power in... 662
 CALLENDAR, G. S. 1154
 CALLENDAR, PROF. H. L. 616, 1155
 CAMMEN, LEON..... 1465
 CAMPBELL, F. D. Materials-handling problems and their solution (D)..... 481
 CAMPBELL, H. A. F. Shock-absorbing and recuperating springs (D)..... 491
 CAMPBELL, JAMES A. Progress in textile mechanical engineering..... 1425
 Canada, American aluminum industry in..... 173
 hydroelectric progress in, during 1925..... 220
 CANTIENY, G. 163
 Cape-Town-London by air..... 496
 Car, light, Hanomag..... 1149
 rail, motor, double-drive..... 169
 Carbo-coal process, Smith..... 1464
 Carbon deposits in engines, influence of temperature, fuel, and lubricant in forming..... 771
 dioxide as an index of fatigue, discussion on monoxide and automobile exhaust gases, note on..... 599
 steels, paper on, presented at 1926 A.I.M.E. annual meeting..... 394
 Carbonization, low-temperature..... 55, 161, 1217, 1464
 low-temperature, in revolving retorts..... 56
 low-temperature, Salerno process of..... 1463
 low-temperature, Staveley system of..... 613
 Carburetor, commercial, characteristics of..... 58
 Cars and locomotives, heat-treated steel for (C. T.)..... 1163
 iceless refrigerator..... 863
 refrigerator, bunkers on, divided-basket..... 1058
 CARY, A. A. Industrial furnaces (D)..... 358, 359
 CASE, GEO. S. Stresses on bolts—nut dimensions—wrench design..... 919
 Casein solids, condensation products, note on..... 1406
 Cast iron, effect of various alloys on the growth of, under repeated heatings..... 1174
 gear teeth, wear experiments on, discussion on..... 600
 gear teeth, some comparative wear experiments on..... 33
 gray, a shear test for..... 1175
 influence of phosphorus on..... 1174
 malleable..... 1175
 pearlite..... 1174
 pipe, standardization of..... 527
 pipe to be standardized..... 1164
 strength of, in relation to its thickness..... 1174
 testing of..... 1175
 heat- and scale-resisting..... 1174
 Cast steels, manganese in..... 1174
 Casting in permanent metal molds..... 54
 Castings, hydraulic washing of..... 54
 iron, permanent molds for making..... 916
 malleable..... 1175
 steel..... 1178
 Castings, steel, quality, heat-treatment data on..... 497
 Caterpillar tractor and its application to industry, the development of the..... 657
 Caustic embrittlement in boilers, data wanted on..... 532
 CAVE-BROWN-CAVE, T. R. 164
 Cellulose chemistry..... 1464
 CENTNER, P. 1462
 Central station at Rummelsburg..... 169
 Centralizing vs. vitalizing organizations..... 1251
 Centrifugal compressors for Diesel engines, discussion on..... 473
 compressors, heat-balance method of testing, force, metric units..... 1049
 Centrifugally cast pipe, DeLavaud..... 265
 Chain grates, burning Pittsburgh coal, refractories service conditions in furnaces..... 1115
 Chains, heat treatment of, note on..... 1479
 CHAMBERS, W. R. Industrial furnaces (D)..... 359
 Waste-heat boilers in steel mills (D)..... 1031
 Chamfering..... 171
 CHAPMAN, F. F. 952
 CHAPMAN, W. B. Industrial furnaces (D)..... 357
 CHARCH, WM. HALE..... 615
 Charcoal tests, termination of..... 1030
 Chemists, registration of, editorial..... 177
 CHENOWETH, OPIE..... 58
 Chicago district, electric power development in the..... 292
 holds successful power conference..... 290
 power meeting, editorial..... 370
 CHRISTIE, A. G., PROF. 463
 Development of a unit coal pulverizer (D)..... 1368
 Embrittlement of steel..... 960
 Chrome plating..... 378
 Chromium plating of printing plates..... 582
 plating of steel auto parts..... 952
 Chromium steels of the stainless-steel type..... 952
 Cinders as locomotive fuel..... 760
 Circular motion, into rectilinear, simple mechanism for transforming (C)..... 861
 Civil aviation, Guggenheim fund to promote..... 283
 Civilization, the doctor-engineer scans, editorial..... 76
 Civilization, the engineer and..... 1
 Clamp carriers for wood gluing, design and application of..... 427
 CLAPP, W. HOWARD. An analysis of deep-well oil pumping..... 941
 CLARK, H. H. 848
 Gas in industry..... 291
 CLARK, J. C. Railroad organization..... 1247
 CLARK, WALLACE. Carbon dioxide as an index of fatigue (D)..... 494
 CLARK, W. R. Industrial furnaces (D)..... 359
 CLARKE, C. W. E. Recent developments at Colfax station..... 39
 CLAWSON, M. S. 54
 CLEMENTS, F. O. Evaluating research ideas..... 183
 CLIFFORD, E. L. Development of a unit coal pulverizer (D)..... 462
 "Cluster" rolling mill, Bliss..... 620
 Clutch, friction..... 1153
 Coal and coke, X-ray studies of..... 1465
 atomized..... 266
 bituminous, complete gasification of..... 1213
 by-product processing of..... 233
 commission, report of the British Royal..... 434
 complete gasification of, for firing boilers..... 509
 constitution of, editorial..... 77
 distillation at Mathias Stinnes Colliery..... 162
 distillation of..... 1210
 electricity direct from..... 958
 gasified..... 1146
 jig testing of X-ray..... 1462
 low-temperature carbonization of..... 1217
 mines, an experiment in combined cutting, mining and loading in..... 451
 mines, mechanical loading in..... 456
 mines, mechanizing of..... 458
 mines, mechanizing of, editorial..... 390
 oil from..... 953
 papers on, presented at 1926 A.I.M.E. annual meeting..... 393
 Pittsburgh, burning on chain grates, refractories service conditions in furnaces..... 1115
 powdered, for Ashley Street station..... 291
 pulverizer, development of a unit..... 462
 pulverizer, unit, development of, authors' closure to discussion on..... 463
 purchasing on specifications (C. T.)..... 1163
 spontaneous combustion of..... 55
 steaming with various types of..... 55
 transport..... 758
 Coals, coking propensities of..... 1146
 CO₂ and excess air (C)..... 1063
 CO₂ values (C. T.)..... 1472
 COCHRAN, HEYWOOD..... 1152
 Cockburn high-lift safety valve..... 1467
 COGS, HAROLD V. Industry's annual tax for materials handling and suggestions for its elimination..... 1253
 Production control in the newsprint industry (D)..... 52
 Safety in materials handling (D)..... 480
 Coinciding states, principle of..... 64
 Coke and coal, x-ray studies of..... 1465
 Coking propensities of coals..... 1146
 COLBY, H. S. 510
 Cold drawing of bar steel..... 448
 press finishing of metal..... 899
 straightening..... 54
 COLER, CARL S. Trades training..... 1257
 Colfax station, recent developments at..... 39
 College, General Motors, at Flint, Mich..... 1061
 Colloidal fuel..... 163
 Colo Diesel engines..... 1052
 Combustion air, preheating..... 852
 Engineering Corporation steam generator..... 167
 flame of, observation of..... 165
 in gas engines..... 955
 of a drop of fuel oil in motion..... 1053
 spontaneous, of coal..... 55
 two-stage..... 372
 COMMENTZ, CARL, DR. 511
 Commercial operations, operation of the air mail and its possible application to..... 465
 Compound Diesel engine, Bielefeld, experimental interest law and probability law as applied to grinding..... 951

- Compounding, Diesel-engine..... 848
 Compression, air, an experimental investigation
 of hydraulic..... 888
 ratio in 1925 engines..... 272
 Compressor, air, Hele-Shaw Beacham..... 53
 ammonia, magnetic valve for..... 372
 mercury, evolved from Archimedes screw
 pump..... 1228
 rotary..... 371
 valves..... 274
 Compressors, centrifugal, heat-balance method of
 testing..... 256
 dry-working..... 274
 for Diesel engines, centrifugal, discussion on..... 473
 Compressors, refrigerating..... 274
 Condensation products-casein solids, note on..... 1406
 Condenser, ammonia, vertical shell-and-tube-
 type..... 1152
 importance of turbulence through..... 958
 operation, some results of..... 1312
 practice, central-station..... 852
 Condenser, steam..... 958
 tubes, pyrex, heat flow in..... 173
 turbine-, Alden, expansion gasket for..... 1467
 Conference Table, The..... 1162, 1472
 Conference Table, editorial discussing..... 1486
 Conical rotary pump..... 1058
 CONNET, F. N. Springs for electrical measuring
 instruments (D)..... 494
 Conservation in industry, the nation's program of..... 1489
 Containers, shipping, scientifically developed, dis-
 cussion on..... 349
 Continental-Armyll engine..... 511
 Control devices, automatic..... 761
 and hoisting systems (C. T.)..... 1163, 1473
 Conveyors and conveying machinery..... 527
 COOK, J. W. Progress in printing (C)..... 175
 COOKE, HARTE. Auxiliaries for motor vessels—
 II (D)..... 829
 The Diesel-electric locomotive and its various
 applications..... 585
 COOKE, MORRIS LLEWELLYN. Appreciation of
 Oberlin Smith..... 973
 COOLIDGE, CALVIN W. Telegram to Elbert H.
 Gary on national defense..... 18
 Cooling air in an office building..... 1469
 evaporative..... 164
 of oil, mechanical engineering in the cracking,
 heating and..... 673
 Coopers', tinner's and belt rivets, small rivets,
 and plow bolts, tentative American stand-
 ards for..... 1480
 Cornell, proposed memorial at, to John Edson
 Sweet..... 538
 Correspondence..... 175, 277, 379, 528, 624, 765, 860,
 967, 1063, 1165, 1479
 Corrosion and abrasion, rubber as a resistant to..... 844
 and pitting in boiler flues..... 167
 and pitting in locomotive boilers..... 855
 boiler-water conditioning with special ref-
 erence to high-operating pressure and..... 317
 in engines, causes of wear and..... 771
 of boilers and effect of treated water in ac-
 celerating or relieving these troubles..... 1373
 of iron and zinc, effect of temperature on
 liberation of hydrogen gas by..... 1133
 steam-boiler, problem of..... 1017
 symposium of the Institute of Chemical
 Engineers..... 952
 CORT, STEWART J..... 1061
 Cotton gin, effect on politics of United States from
 1787 to 1857..... 1397
 mill, fundamental measurements in a..... 746
 mill, fundamental measurements in—general
 discussion..... 432
 textile industry..... 999, 1464
 textile mills, power losses in..... 1103
 Cottonseed-oil mill, test of the world's largest..... 740
 COUGHLAN, R. E. Progress of water treatment
 on railroads..... 1024
 Counterbalance, insufficient..... 856
 COURNOT, H..... 1465
 COX, HARRY PEARSE, JR. Study of the effect of
 end shape on the towing resistance of a
 barge model..... 833
 COX, WM. G..... 271
 Cozette rotary blower..... 371
 COZZENS, H. A., JR. Industrial boiler efficiencies
 (D)..... 928
 Cracking, heating and cooling of oil, mechanical
 engineering in..... 673
 of boiler plates, note on..... 16
 CRANE, E. V. Cold-press finishing of metal..... 899
 Cranes, derricks, and hoists, new sectional com-
 mittee to develop safety code for..... 1484
 Crankless Diesel engine..... 164
 engine, Michell..... 371
 CRAWFORD, C. P..... 56
 Critical speed, deflection of shaft at (C)..... 765
 tables, international, soon to be published..... 276
 CROMPTON, COL. R. E., honorary secretary I.E.C. 636
 CROWE, JOHN J. Autogenously and electrically
 welded boilers and containers (D)..... 968
 Crushing phenomena, paper on, presented at 1926
 A.I.M.E. annual meeting..... 393
 Cryogenic laboratory at Leyden..... 1470
 CUSHMAN, FRANK. Training for foremanship..... 906
 CUTTER, L. E., GREEN, B. M., and MARX, G. H.
 Some comparative wear experiments on
 cast-iron gear teeth..... 33
 Cutting metals, temperatures in..... 506
 Cylinder grinding, measures to be observed in,
 note on..... 1434
- D**
- DAHILL, EDWARD, JR. Scientifically developed
 shipping containers (D)..... 351
 DAHLSTRAND, HANS. Higher steam pressures in
 the industrial plant (D)..... 470
 Damages and Accounting in Patent-Infringement
 Cases, book review..... 539
 DANEKIND, A. C. Development of tap-drill sizes..... 445
 DANIELS, SAMUEL. Fusion-joining of metallic
 materials in aircraft construction..... 1240
 DARLINGTON, P. J. Gaging and measuring ter-
 minology (C)..... 279
 Hole basic exceptions (C)..... 529
 Standardized machine fits (C)..... 1166
 DAVID, W. T., PROF..... 955
 DAVIS, D. L. Unethical use of manufacturers'
 drawings (C)..... 277
 DAVIS, DWIGHT F., secretary of war, address of,
 at 1925 A.S.M.E. Annual Meeting..... 17
 DAVIS, H. N. Progress made in the technique of
 computing a steam table from the Harvard
 data..... 159
 DAVIS, J. D..... 161
 DEAN, F. W. Industrial boiler efficiencies (D)..... 928
 DEBAUFRE, W. L. Helical springs (D)..... 491
 DEBLOIS, L. A. Safety in materials handling (D)..... 480
 Deep-well oil pumping, an analysis of..... 941
 Deflection of shaft at critical speed (C)..... 765
 Defrosting of meat, electrical..... 514
 DEKEYSER, CHAS..... 269
 DEKKER, DIRK. Contents of spherically dished
 heads of storage tanks for various depths
 of the liquid and various angles of tilt of the
 tank (C)..... 967
 DE LA CIERVA, SENOR..... 265
 DeLavaud centrifugally cast pipe..... 265
 DENHAM, ATHEL F..... 1050
 DENNIS, B. W..... 1468
 DENNISON, HENRY S. Management week..... 1172
 DEREMER, J. G. A mercury compressor evolved
 from the Archimedes screw pump..... 1228
 Derricks, cranes, and hoists, new sectional com-
 mittee to develop safety code..... 1484
 Design and application of clamp carriers for wood
 gluing..... 427
 and manufacture of metal springs..... 484
 and test of Susquehanna station..... 362
 influence on production..... 442
 machine, non-technical features of..... 738
 wood-working machinery, refinements in..... 415
 Designs, the plight of industrial..... 702
 Detonation, chemical nature of..... 615
 dopes and..... 616
 Detroit, Stinson, cabin plane..... 612
 DRUEL, H. A. Industrial furnaces (D)..... 359
 Diatomic gases O₂, N₂, and CO, a temperature-
 entropy diagram for air and..... 1329
 DIBBLE, LEWIS..... 1061
 DICHMAN, E. W. Maintenance and depreciation
 of airplanes and engines..... 574
 DICKINSON, E. D. Higher steam pressures in the
 industrial plant (D)..... 470
 DICKINSON, H. W. Landmarks in the history of
 prime movers..... 1385
 The science museum, South Kensington,
 London..... 104
 DIEDERICH, H. Economic America, book re-
 view..... 871
 Diesel..... 848
 compound, Bielefeld experimental..... 848
 compounding..... 848
 -electric locomotive and its relation to heavy
 electrification..... 585
 -electric locomotive and its various applica-
 tions..... 585
 -electric locomotive, 80-ton, inspected in the
 yards of the C.R.R. of N.J., view of..... 69
 -electric locomotive, its field and advantages..... 587
 engine, 15,000-b.hp..... 1147
 engine, crankless..... 164
 -engine design, new trends in..... 1053
 -engine design, tendencies in..... 848
 engine, two-cycle, double-acting, M.A.N..... 756
 engine, Werkspoor..... 1466
 Engines, book review..... 1179
 engines burning producer tar..... 1465
 engines, centrifugal compressors for, dis-
 cussion on..... 473
 engines, Colo..... 1052
 engines, high-powered..... 1053
 engines, temperature variations in, note on..... 526
 locomotives, mechanical transmission for
 (C. T.)..... 1473
 marine engine, Mirreles, Bickerton and Day..... 271
 semi-, engines, ignition plug for starting..... 165
 -type engine, solid-fuel, Schnirle..... 955
 -type engines, solid-fuel..... 955
 vs. gasoline engine for shovel (C. T.)..... 1472
 Dilatometric analysis of materials..... 1177
 DIMAN, W. G. Higher steam pressures in the
 industrial plant (D)..... 469
 Diphenyl oxide bi-fluid power plants..... 815
 Discoveries, accidental, editorial..... 865
 Dished heads of pressure vessels, design of..... 845
 heads of storage tanks for various depths of
 liquid and various angles of tilt of tank,
 contents of spherically (C)..... 966
 Dispersal or "sputtering" of metals..... 1470
 Distillation of coal..... 1210
 District apprenticeship system..... 885
 Divining rods..... 173
 DIXON, W. F. Progress in machine-shop prac-
 tice..... 1424
 Doctor-engineer scans civilization, editorial..... 76
 DONKIN, W. T. The specification and control of
 mechanical springs (D)..... 814
 Door and sash manufacturing, modern..... 1453
 Dopes and detonation..... 616
 Double-expansion internal-combustion engine..... 57
 DOUGHERTY, H. M. The earnings of engineers
 (C)..... 380
 DOW, H. H. Diphenyl oxide bi-fluid power
 plants..... 815
 Dowders..... 173
 DOYLE, J. A. Industrial furnaces (D)..... 356
 Drafting practice, standardized, editorial..... 1169
 DRAKE, R. W. Tension ratio and transmissive
 power of belts (D)..... 240
 Drawing, mechanical, teaching of, at Ford Ap-
 prentice School (C)..... 860
 properties of metals, some attempts to mea-
 sure the..... 119
 -room practice to be standardized..... 275
 sizes and system of numbers for mechanical
 drawings, proposed standard for..... 1143
 Drawings and drafting-room practice, standards,
 work begun on..... 1165
 manufacturers', unethical use of, editorial..... 78, (C) 277
 mechanical, proposed standards for drawing
 sizes and system of numbers for..... 1143
 slanting letters on, save money (C)..... 624
 unethical use of manufacturers' (C)..... 528, 766
 Drilling, high-speed, oils for (C. T.)..... 1163
 machine, firebox and boiler-shell..... 58
 machine, rotary..... 959
 Drive, group and individually motorized drive..... 889
 mechanical, automotive train with..... 760
 Drums, boiler..... 618
 Dry ice..... 1059
 working compressors..... 274
 Drying air by silica gel..... 1061
 DuBRUL, E. F. Graphical methods of calcula-
 tion (D)..... 592
 The making of special slide rules (D)..... 594
 DUDLEY, J. G. Diesel-electric locomotive and
 heavy electrification (D)..... 589
 DUNKEL, MANFRED..... 954
 DUNLAP, M. E. The value of paint primers in
 protecting wood..... 1457

| | |
|--|------|
| DUNN, SAMUEL O. | 1151 |
| DURAND, W. F. | 1050 |
| American Year Book, book review. | 642 |
| Science and engineering. | 337 |
| The engineer and civilization. | 1 |
| The Hydraulic Laboratories of Europe, book review. | 1491 |
| Düsseldorf Heat Institute. | 611 |
| DYRSSON, WALDEMAR. | 169 |

E

| | |
|--|--|
| Earnings of engineers. | (C) 380, (C) 766, (C) 861, (C) 1065 |
| Earth, internal heat of, steam apparatus for utilizing. | 374 |
| more heat from the, editorial. | 1066 |
| EASTWOOD, E. O. Engineering education, editorial. | 389 |
| EATON, G. M. Normal pitch the index of gear performance. | 27 |
| Wear experiments on cast-iron gear teeth (D). | 600 |
| EDERHARDT, H. J. Wear experiments in cast-iron gear teeth (D). | 601 |
| ECK, BRUNO. Characteristic coefficients for hydraulic machines. | 949 |
| ECKART, W. R. Wear experiments on cast-iron gear teeth (D). | 601 |
| Eclancher self-synchronizing electric motor. | 751 |
| Economic America, book review. | 871 |
| EDGAR, WALTER S. The use of wood lacquer finishes. | 1289 |
| EDGERTON, C. T. Formulas for the design of helical springs of square or rectangular steel. | 484 |
| Editorial Notes. | 76, 176, 280, 388, 530, 630, 768, 864, 970, 1066, 1168, 1486 |
| Education, aeronautical, grants to, by Daniel Guggenheim fund. | 1069 |
| and training of apprentices on the Pacific Coast. | 686 |
| engineering. | 972 |
| engineering, editorials. | 388, 866 |
| investigation, progress in. | 283 |
| liberal, the engineer and, editorial. | 530 |
| Educational training for industry. | 1261 |
| EDWARDS, FRANK. | 617 |
| Efficiencies, industrial-boiler. | 412 |
| Efficiency, plant. | 360 |
| EGLOFF, GUSTAV. | 1052 |
| EICHENBERG, G. | 63 |
| EKSEKIAN, R. Preliminary power rating and tractive force of modern locomotives. | 1095 |
| Shock-absorbing and recuperating springs (D). | 492 |
| Some remarks on engineering standardization (C). | 965 |
| Transmission of power on oil-engine locomotives (D). | 1044 |
| Elasticity and errors in tooth shape on stresses in gears, the influence of. | 893 |
| Applied, book review of. | 294 |
| Electric drive, group and individual. | 889 |
| locomotive, Diesel-, and its relation to heavy electrification. | 585 |
| molder, discussion on. | 351 |
| motor, self-synchronizing, Eclancher. | 751 |
| power development in Chicago district. | 292 |
| transmission for internal-combustion engines. | 205 |
| Electrical energy produced hydraulically and by steam. | 1149 |
| machinery, rating of. | 174 |
| Electrically and autogenously welded boilers and containers. | 603, (D) 967 |
| welded pressure vessels, strength of. | 762 |
| Electricity direct from coal. | 958 |
| Electrification, heavy, Diesel-electric locomotive and its relation to. | 585 |
| Electrotechnical Commission, International, April, 1926, meeting of the, note on. | 286 |
| Commission, International, meets in New York. | 535 |
| Commission, International, prominent foreign engineers and scientists to attend U.S. meeting of. | 390 |
| Elevator safeties, buffers and other similar equipment, tests of, to be standardized. | 527 |
| ELIEL, PAUL. Education and training of apprentices on the Pacific Coast. | 686 |

| | |
|---|--|
| ELLENWOOD, F. O. Higher steam pressures in the industrial plant (D). | 470 |
| Recent developments at Colfax Station (D). | 571 |
| Ellis-Eaves system. | 169 |
| ELLIS, JAMES. The engineer and the English language (C). | 966 |
| ELMER, L. A. Ring spring (D). | 494 |
| ELMER, N. W. The mechanizing of our coal mines. | 458 |
| The Miner's Freedom, book review. | 775 |
| ELMER, WILLIAM. Transmission of power on oil-engine locomotives (D). | 1046 |
| Embrittlement in boilers, caustic, data wanted on. | 532 |
| in malleable iron, elimination of. | 505 |
| of steel. | 1368 |
| EMERSON, HARRINGTON. Carbon dioxide as an index of fatigue (D). | 495 |
| The airship and its place in commerce (D). | 577 |
| ENDERS, E. R., JR., and MONTGOMERY, W. S., JR. Some attempts to measure the drawing properties of metals. | 119 |
| Energy, electrical, produced hydraulically and by steam. | 1149 |
| Engine, aero-, endurance test. | 508 |
| aero-, progress, supercharging. | 1461 |
| aircraft, Pobjoy. | 1466 |
| Continental-Argyll. | 511 |
| dismountable, Ryan monoplane with. | 1050 |
| Diesel, marine, Mirreles, Bickerton and Day. | 271 |
| Diesel, two-cycle, double-acting, M.A.N. | 756 |
| Diesel vs. gasoline, for shovel (C. T.). | 1472 |
| gas-, tests, thermodynamic analysis of. | 56 |
| heavy-oil, Attenu. | 371 |
| high-efficiency oil, note on. | 594 |
| internal combustion, double-expansion. | 57 |
| Junkers. | 164 |
| light-plane, Blackburne-Thrush. | 270 |
| life, airplane and. | 1050 |
| marine, Fairbanks-Morse. | 372 |
| oil, for bus service. | 848 |
| oil, marine. | 849 |
| oil, modern. | 1315 |
| racing. | 374 |
| Rhone, super. | 263 |
| single-sleeve-valve, Burt-McCollum. | 511 |
| steam, early days of. | 274 |
| steam, future of. | 853 |
| steam-oil, Plenty-Still. | 1147 |
| steam, pass-out, for a paper mill. | 1153 |
| Engineer and civilization. | 1 |
| and liberal education, editorial. | 530 |
| and the English language, editorial. | 768, (C) 966 |
| Engineering. | 1089 |
| advancement of, in relation to that of science. | 101 |
| Engineering and Industrial Standardization. | 65, 174, 275, 381, 527, 622, 763, 862, 965, 1062, 1164, 1484 |
| and science in the metal industry. | 8 |
| and science. | 337 |
| as a profession and its possibilities, Dr. W. E. Wickenden on choice of. | 769 |
| aspects of treating textile water supplies. | 435, 748 |
| education. | 962 |
| education, editorials. | 388, 866 |
| Engineering Foundation makes important announcements at regular meeting. | 769 |
| Foundation, a platform for. | 78 |
| Engineering Index. | 89, 189, 297, 397, 545, 645, 779, 873, 977, 1077, 1181, 1493 |
| materials, present tendencies in. | 791 |
| scene. | 794 |
| standardization, some remarks on (C). | 965 |
| Engineers, earnings of. | (C) 380, (C) 625, (C) 766, (C) 861, (C) 1065 |
| in industry, opportunities for. | 261 |
| public recognition for, editorial. | 630 |
| Engines, 1925, compression ratio in. | 272 |
| aero, Napier-Lion. | 1460 |
| Diesel, centrifugal compressors for, discussion on. | 473 |
| gas, combustion in. | 955 |
| gasoline, explosions in. | 955 |
| high-compression, fuels for. | 268 |
| internal-combustion, electric transmission for. | 205 |
| internal-combustion, tangent method of analysis for indicator cards of. | 1263 |
| maintenance and depreciation of airplanes and. | 574 |
| oil, as a drive for pipe-line pumps. | 663 |
| oil-injection for aircraft, research on. | 1123 |
| oil, piston for. | 1054 |
| solid-fuel, editorial. | 1067 |

| | |
|--|------|
| Engines, wear and corrosion in, causes of. | 771 |
| English Electric Co. | 1151 |
| language, the engineer and the (C). | 966 |
| Entropy-temperature diagram for air and the diatomic gases O_2 , N_2 , and CO . | 1329 |
| Ericsson, John, memorial (portrait). | 772 |
| memorial to, unveiled. | 772 |
| ERNST, F. A., and REED, F. C. A high-pressure relief valve. | 595 |
| ESSELEN, GUSTAVUS J., JR. | 1465 |
| European Hydraulic Laboratories and Their Work, book review. | 642 |
| EVANS, ULICK R. | 958 |
| Evaporation, dual, refrigeration with. | 1059 |
| Evaporative cooling. | 164 |
| EVERETT, HAROLD A. A temperature-entropy diagram for air and the diatomic gases O_2 , N_2 , and CO . | 1329 |
| Excess air in boiler furnaces, limiting factors in reducing. | 703 |
| Expansion stroke, explosive reaction during. | 57 |
| Explosions in gasoline engines. | 955 |
| Explosive reaction during expansion stroke. | 57 |

F

| | |
|--|------|
| Fabrics, airplane, tests of. | 172 |
| deterioration of, caused by light and micro-organisms. | 172 |
| effect of humidity on. | 173 |
| tensile strength of. | 173 |
| FAIR, C. D. Safety code for woodworking plants (D). | 640 |
| Fairbanks-Morse marine engine. | 372 |
| FALK, HAROLD S. The district apprenticeship system. | 885 |
| Fans and pumps, papers on, presented at 1926 A.I.M.E. annual meeting. | 393 |
| FARNHAM, K. W. Coal-mine mechanization (D). | 460 |
| FARRA, E. R. Safety code for woodworking plants (D). | 640 |
| Fatigue, carbon dioxide as an index of, discussion on. | 494 |
| —industrial posture—waste elimination. | 814 |
| Federal judges, appeal for adequate salaries for. | 79 |
| Oil Conservation Board meets. | 289 |
| Oil Conservation Board, preliminary report of. | 998 |
| Feeders. | 758 |
| Feedwater, boiler, extensive research now in progress. | 287 |
| boiler, pretreatment of. | 1361 |
| "Feel" gages. | 166 |
| FELBECK, GEO. T. | 57 |
| FENN, W. O. Carbon dioxide as an index of fatigue (D). | 495 |
| FERRANTI. | 513 |
| Ferrous metallurgy, year's progress in. | 1443 |
| FIELDNER, A. C. Low-temperature carbonization of coal. | 1217 |
| Fifty-ninth St. power station, new boiler equipment at the Interborough Rapid Transit Co.'s. | 246 |
| Fillers and stains, wood, for use with lacquer, technology of. | 1293 |
| Films. | 374 |
| oil. | 1467 |
| thin, fourth state. | 374 |
| Filters. | 857 |
| Finishes, varnish and lacquer, exposed to accelerated breakdown tests, a study of. | 1291 |
| wood, technology of and their application. | 423 |
| FINNEY, BURNHAM. | 613 |
| FINDLAY, W. S. | 957 |
| Fire tests of building construction and materials, standard specifications for. | 1062 |
| Firebox and boiler-shell drilling machine. | 58 |
| Firebrick, tests for spalling. | 633 |
| Fireclay plugs. | 55 |
| refractories. | 612 |
| Fires, forest, spark arresters and. | 352 |
| Firing boilers, complete gasification of coal for. | 509 |
| wood-waste (C. T.). | 1472 |
| FISCHER and GLUUD. | 1146 |
| Fischer process, new. | 1052 |
| FISKE, ROGERS A. | 54 |
| Fits, a system of, for different kinds of (C). | 279 |
| machine, standardized (C). | 1165 |
| of shafts and holes. | 166 |
| tolerances and allowances for metal, note on publication of. | 178 |

- FITZSIMMONS, S. D. Industrial-boiler efficiencies. 412
 Flame of combustion, observation of. 165
 Flames, "luminous". 612
 FLANDERS, R. E. Apprenticeship (D). 639
 Development of tap-drill sizes (D). 639
 Principles of Industrial Organization, book review. 187
 Flanged fittings and steel pipe flanges, tentative American standard for. 858
 fittings, steel flanges and. 1485
 Flanges, steel-pipe, and flanged fittings, tentative American standard for. 858
 FLINN, ALFRED D. A platform for Engineering Foundation. 78
 FLINN, F. B. Carbon dioxide as an index of fatigue (D). 495
 Flint, Mich., General Motors College at. 1061
 Flow in a low-carbon steel at various temperatures. 431
 measurements, distant, telerecorder for. 374
 method of pouring steel ingots. 272
 Flow of fluids in pipes of annular cross-section. 1112
 of gas through a pipe, radiation during. 1047
 of gases at high speeds. 850
 of Water in Pipes, book review. 775
 FLOWERS, A. E. Carbon dioxide as an index of fatigue (D). 495
 Flue-gas computations. 330
 Flues, boiler, pitting and corrosion in. 167
 Fluid flow in pipes of annular cross-section. 1112
 Flying boat, Albatros, on wheels. 370
 field, municipal, size of (C. T.). 1162
 Flywheel manufacture at Nash plant. 617
 Flywheels, machine for determining unbalance of. 483
 Foaming and priming of boiler water, with suggestions for research, present knowledge of. 1364
 FOLLAIN, R. 1060
 Follain water-vapor refrigerating machine. 1152
 Forced-landing causes (C. T.). 1162, 1472
 Ford air-transport program. 263
 Apprentice School, technical mechanical drawing at (C). 860
 wire plant. 1471
 Foreign trade, use of specifications in. 275
 Foremanship, science of. 1404
 training for. 906
 Forest fires, spark arresters and. 352
 Forgings, hollow-forged seamless steel drum, proposed specifications for. 1166
 Formulations, comparison with the (steam-table research). 159
 FORSSBLAD, N. 962
 Forth bridge. 509
 FORTSCH, A. R. 1051
 FOULK, C. W. Present knowledge of foaming and priming of boiler water with suggestions. 1364
 Foundry machinery, exposition of. 1177
 Foundrymen meet in Detroit. 1174
 FOX, E. J. 266
 France, industrial recovery of. 697
 FRANKLIN, BENJAMIN. 374
 FREED, M. L. Mullite refractories. 633
 French motor car of today. 1388
 rail specification. 53
 Frequency changers, high-speed induction motors and, discussion on. 354
 FREW, G. H. High-speed induction motors and frequency changers (D). 354
 Friction clutch. 1153
 piston-ring, testing rig to determine. 164
 FRITZ, H. E., and ROGERS, B. W. Rubber as a resistant to corrosion and abrasion. 844
 FROCHT, MAX M. Non-technical features of machine design. 738
 The question mark in machine design (C). 624
 FROGGETT, J. F. 619
 Fry, L. H. Reply to discussion by A. I. Lipetz on the locomotive-testing plant. 38
 FRYSMOYER, W. W. A simple mechanism for transforming circular into rectilinear motion (C). 861
 Fuel-burning equipment for generating stations, selection of. 947
 conservation in the United States Government merchant marine fleet. 989
 gas as. 847
 lines, oil-engine, splitting (C. T.). 1472
 locomotive, cinders as. 760
 oil for railways. 671
 oils, specific gravity and viscosity in. 371
 powdered, experiences with. 758
 pulverized, present practice in burning. 290
 Fuel Research Board, British. 54
 Fuels, automobile, volatility of. 771
 automotive. 1464
 engineering, progress in. 1416
 for high-compression engines. 268
 industrial. 847
 motor. 511
 FUNK, N. E. Comparative performance of air preheaters. 562
 Design and test of Susquehanna station, Middletown, Pa. (D). 368
 The supply of industrial power (D). 504
 FURMAN, F. DER. Piano-Playing Mechanisms, book review. 775
 Furnace, air, with underfeed stoker. 613
 boiler, temperature of. 962
 design for traveling-grate stokers. 510
 tornado. 754
 walls, water-cooled. 1057
 "well-type". 754
 Furnaces and boilers. 759
 boiler, design of, combustion volumes for pulverized fuel. 754
 boiler, radiation in. 133, 218
 burning Pittsburgh coal on chain grates, refractories service conditions in. 1115
 industrial. 356
 limiting factors in reducing excess air in boiler. 703
 open-hearth. 1061
 tornado. 754
 FURST, W. A. High-speed induction motors and frequency changers (D). 354
 Fusion-joining of metallic materials in aircraft construction. 1240
 welded pressure vessels. 221
 welding, applications to structural work, editorial. 1067
- G**
- Gages, "feel". 166
 wire and sheet-metal, engineers to unify. 527
 wire and sheet-metal, unification of. 275
 GAGG, R. F. Graphical methods of calculation (D). 592
 Gaging and measuring terminology (C). 278
 GALLAGHER, JOHN L. 1149
 GARY, ELBERT H., speaks at National Defense session of 1925 A.S.M.E. Annual Meeting. 17
 Gas- and oil-power engineering, progress in. 1421
 as a factor in the production of oil. 590
 as a fuel. 847
 -burning furnaces, combined oil- and, for power-plant use. 683
 cylinders, elimination of heat treatment in England. 1153
 -electric storage-battery switching locomotive. 1469
 -engine tests, thermodynamic analysis of. 56
 engines, combustion in. 955
 turbine, exhaust. 167
 flue, computations of. 330
 in industry. 291
 peat, as fuel in an Italian plant. 613
 Pittsburgh, as fuel. 847
 producer, Wellman L-type. 164
 producers, mechanical. 743
 radiation flow through a pipe. 1047
 -starter system for aircraft engines. 1460
 Gases, flow at high speeds. 851
 Kutter's formula applied to. 1057
 Gasification of bituminous coal, complete. 1213
 of coal for firing boilers, complete. 509
 Gasified coal. 1146
 Gasifier. 267
 Gasket, expansion, Alden turbine-condenser. 1467
 Gasoline engines, explosions in. 955
 lead-treated, editorial. 281
 vs. Diesel engine for shovel (C. T.). 1472
 GATES, THAYER P. Mechanical and material research in management. 579, 750
 GAYHART, E. L. Estimating the power required for ship propulsion. 723
 Gear manufacturers meet in Detroit. 770
 performance, normal pitch the index of. 27
 teeth, cast iron, wear experiments on, discussion on. 600
 teeth, contact, path of. 166
 teeth, some comparative wear experiments on cast-iron. 33
 Gear teeth, the strength of. 1105
 toothless. 422
 Gearing, automotive worm. 771
 Gears, ground, characteristics and uses of. 32
 hypoid, note on. 899
 influence of elasticity and errors in tooth shape on stresses in. 893
 pump, "Roloid". 1469
 Gelsenkirchen. 56
 General Motors College at Flint, Mich. 1061
 Generating stations, selection of fuel-burning equipment for. 947
 Generator, steam, Combustion Engineering Corporation. 167
 Generators, oil-engine, direct connected. 511
 Geneva stop, inertia forces in. 619
 GERMAN, A. J. Higher steam pressures in the industrial plant (D). 470
 German boiler-shell practice. 956
 museum in Munich. 21
 steel wage rates low. 1459
 GIBBONS, J. O. G. Opportunities for engineers in industry. 261
 The earnings of engineers (C). 625
 Gib-head and plain taper keys, note on report on. 381
 GIBSON, A. H., PROF. 164, 1056
 GIESECKE, F. E. 62
 GILBERT, E. M. Design and test of Susquehanna station. 362
 GILBRETH, LILLIAN M. Carbon dioxide as an index of fatigue (D). 495
 GILLETTE, LESLIE S. 511
 Gill hydraulic propeller. 1056
 GLENN, J. F. Higher steam pressures in the industrial plant (D). 470
 Glue evaluation, recent advances in methods of, discussion on. 351
 Gluing, wood, design and application of clamp carriers for. 427
 GLUUD, FISCHER and. 1146
 GOFF, L. D. 168
 GOLDSMITH, L. M. Auxiliaries for motor vessels—II (D). 828
 Centrifugal compressors for Diesel engines (D). 474
 GOODENOUGH, G. A. 56
 GOOSMAN, J. C. 1059
 Government service, drastic reorganization of proposed. 285
 Governmental reorganization, editorial. 177
 Governor, speed, for small hydraulic installations. 620
 Graphical methods of calculation, discussion on. 592
 study of journal lubrication—III. 131
 Grate firing, powdered fuel and, combined, Schuckert-Petrit method of. 953
 traveling, furnace design for. 510
 Gravel and sand, paper on, presented at 1926 A.I.M.E. annual meeting. 394
 GRAVES, B. P. The specification and control of mechanical springs (D). 814
 Gray cast iron, a shearing test for. 1175
 iron problems. 1175
 Great Britain, college of imperial defense for. 866
 GREAVES-WALKER, A. F. 163
 GREEN, B. M., MARX, G. H., and CUTTER, L. E. Some comparative wear experiments on cast-iron gear teeth. 33
 Green-Lauks plant. 1464
 GREGG, DAVID. 161
 GREER, WILLARD N., and PARKER, HENRY C. The potentiometric determination of hydrogen-ion concentrations as applied to boiler waters. 1129
 GRIEG. 612
 GRIFFITH, L. M. Centrifugal compressors for Diesel engines (D). 474
 Grinding, compound interest law and probability law as applying to. 951
 cylinder, measures to be observed in, note on. 1434
 for quantity production, precision method of. 1161
 roll, machine for. 271
 science of. 951
 Gripsholm, Swedish-American line motorship. 81
 photograph of. 81
 Group drive and individually motorized drive. 883
 GRUNDHOFFER, E. F. The guarded-plate heater method of testing low-temperature insulators compared with several box methods. 1333
 GRUSE, W. A., LIVINGSTONE, C. J., and MARLEY, S. P. The influence of temperature, fuel

| | |
|--|------|
| and lubricant in forming engine carbon deposits..... | 771 |
| Guarded-plate heater method of testing low-temperature insulators compared with several box methods..... | 1333 |
| GUARIN, P. L. Progress in petroleum engineering..... | 1412 |
| Guggenheim, fund, grants to aeronautical education by..... | 1069 |
| fund to promote civil aviation..... | 282 |
| "Gulp" air regulating valve..... | 272 |
| GUNBY, F. M. Selecting a power and heat supply for industrial plants (D)..... | 807 |
| and MAIN, CHARLES T. The cotton industry..... | 999 |
| Gyro pulverized-fuel firing..... | 266 |

H

| | |
|--|------|
| HAAR, SELBY. Tension ratio and transmissive power of belts (D)..... | 245 |
| HACKFORD, J. E..... | 1148 |
| Hackford's factor..... | 1148 |
| HAGEMANN, G. E. Materials-handling problems and their solution (D)..... | 482 |
| HALL, E. D. Modern developments in inspection methods..... | 1435 |
| HALL, JAS. A..... | 619 |
| HALL, R. E. Boiler-water conditioning with special reference to high-operating pressure and corrosion..... | 317 |
| Higher steam pressures in the industrial plant (D)..... | 469 |
| HAM, C. W. Wear experiments on cast iron gear teeth (D)..... | 600 |
| HAMILTON, C. B. Wear experiments in cast iron gear teeth (D)..... | 601 |
| HAMPSON, D. A. Progress in printing (C)..... | 278 |
| HAMPTON, L. C., and VOORHEES, L. W. An analysis of deep-well oil pumping (D)..... | 946 |
| Handbook of Automotive Standards, book review..... | 975 |
| of Safety and Accident Prevention, book review..... | 1074 |
| HANDLEY PAGE..... | 265 |
| Hanomag light car..... | 1149 |
| HARBORD and SUMMERALL, GENERALS, and SECRETARY MACNIDER, addresses by..... | 20 |
| HARBORD, J. G., GEN., photograph of..... | 19 |
| HARDMAN, J. B. S. Carbon dioxide as an index of fatigue (D)..... | 495 |
| Hard spots in metals, machinability of..... | 372 |
| Hardness tests, temperatures generated by..... | 507 |
| HARDY, W. B., SR..... | 374 |
| HARING, H. E..... | 378 |
| HARPER, JOHN. Slanting letters on drawings save money (C)..... | 624 |
| HARRINGTON, JOHN LYLE. The mechanical engineering curriculum..... | 201 |
| HARRIS, A. V..... | 621 |
| HARTSHORN, D. S. The electric molder (D)..... | 351 |
| Harvard throttling experiments, progress report on development of steam charts and tables from..... | 144 |
| University, notes on steam-research work carried out at..... | 155 |
| HATCH, W. T. Industrial boiler efficiencies (D)..... | 926 |
| HATFIELD, W. H., DR..... | 850 |
| HAYES, J. C., JR., and WILCOX, F. H. Waste-heat boilers in steel mills..... | 1031 |
| HAYNES, J. L. Centrifugal compressors for Diesel engines (D)..... | 473 |
| HAZEN, ALLEN. The Flow of Water in Pipes, book review..... | 775 |
| HEARD, CECIL G. Pressure distribution over a U.S.A.-27 aerofoil with square wing tips—model tests..... | 1401 |
| Heat and power, industrial, editorial..... | 77 |
| and power supply for industrial plants, selecting a..... | 567 |
| -balance method of testing centrifugal compressors..... | 256 |
| conductivity of air and hydrogen..... | 621 |
| dissipation by bare iron pipe..... | 62 |
| flow in pyrex condenser tubes..... | 173 |
| from the earth, more, editorial..... | 1066 |
| insulation for temperatures up to 1000 deg. Fahr. on other than flat surfaces, determination of the thermal conductivities of..... | 1297 |
| insulators, low temperature, guarded-plate-heater method of testing compared with several box methods..... | 1333 |

| | |
|---|----------|
| Heat of the earth, internal, steam apparatus for utilizing..... | 374 |
| "shield"..... | 756 |
| supply for industrial plants, selecting a power and..... | 806 |
| total, of steam at pressures up to 1000 lb. per sq. in..... | 1154 |
| transfer from flowing air to tubes and tube nests..... | 1155 |
| transmission..... | 610 |
| -transmission data and knowledge in the refractory field..... | 1307 |
| transmission in a locomotive boiler..... | 1048 |
| transmission, measuring of, methods that have been and are being used for..... | 1337 |
| -treated steel for cars and locomotives (C. T.)..... | 1163 |
| -treating and annealing process, Snead electric..... | 59 |
| -treatment data on quality steel castings..... | 497 |
| treatment, of gas cylinders in England, elimination of..... | 1153 |
| treatment of chains, note on..... | 1479 |
| treatment, standard definitions relating to..... | 174 |
| Heater, air..... | 168 |
| Heating, cracking, and cooling of oil, mechanical engineering in..... | 673 |
| HECHLER, F. G. Methods that have been and are being used for measuring heat transmission..... | 1337 |
| HECK, ROBERT C. H. Comparison with the formulations (steam table research)..... | 159 |
| A graphical study of journal lubrication—III (D)..... | 132 |
| HECKING, JOSEPH. Auxiliaries for motor vessels—II (D)..... | 829 |
| HEDRICK, E. R. Examples of size determination..... | 842 |
| HEILMAN, R. H..... | 62 |
| Determination of the thermal conductivities of insulation for temperatures up to 1000 deg. Fahr. on other than flat surfaces..... | 1297 |
| HELDT, P. M..... | 272, 849 |
| HELE-SHAW, H. S..... | 53 |
| Hele-Shaw Beacham air compressor..... | 53 |
| Helical springs..... | 372 |
| springs of square or rectangular steel, formulas for the design of..... | 484 |
| springs, phosphor-bronze, from standpoint of precision instruments..... | 488 |
| Hell Gate improvement fifty years ago, note on..... | 1091 |
| power station, boiler and stoker performance at..... | 1011 |
| Henning..... | 63, 64 |
| Henry or ash-characteristic curves..... | 1465 |
| HEROD, WILLIAM ROGERS. Power-station accounting for industrial plants..... | 1347 |
| HERSCHEL, CLEMENS. European Hydraulic Laboratories and Their Work, book review..... | 642 |
| HERTER, CHAS. H..... | 1060 |
| HEYMAN, PAUL A. Vibration phenomena of a loaded unbalanced shaft while passing through its critical speed (D)..... | 254 |
| HEYN, MEYRON..... | 954 |
| High-pressure industrial power plants, design of..... | 1039 |
| relief valve..... | 595 |
| High-speed water turbines Berne hydroelectric power station..... | 269 |
| HILL, G. T. R., CAPT..... | 751 |
| HILL, CLAUDE W..... | 372 |
| HILLIGER..... | 1048 |
| HILTON, H. J..... | 372 |
| HIRSHFELD, C. F. Present practice in burning pulverized fuel..... | 290 |
| Hoadley air heater..... | 169 |
| Hose and hydrants, standardization of (C)..... | 277 |
| HÖHN, E..... | 762 |
| Autogenously and electrically welded boilers and containers..... | 603 |
| Hoisting and conveying systems (C. T.)..... | 1473 |
| and conveying systems (C. T.)..... | 1163 |
| Hoists, cranes, derricks, new sectional committee to develop safety code..... | 1484 |
| HOLBORN..... | 64 |
| HOLDEN, P. E. Investigation in relation to safety (D)..... | 639 |
| Hole basic exceptions (C)..... | 528 |
| Holes and shafts, fits of..... | 166 |
| HOLLAND, MAURICE. Research—the prime mover of industry..... | 181 |
| Holland, research in, scientific and industrial..... | 1470 |
| Holland tunnels, safety and the, editorial..... | 1168 |
| HOLT, PLINY E. The development of the cater- | |

| | |
|--|--------------------|
| pillar tractor and its application to industry..... | 657 |
| Holtwood plant, hydraulic maintenance at..... | 341 |
| Home Office Committee of 1895..... | 1153 |
| Honorary memberships awarded Herbert Hoover and Worcester R. Warner..... | 67 |
| HOOB, O. P..... | 754 |
| Industrial furnaces (D)..... | 356 |
| Keeping the atmosphere clean, editorial..... | 388 |
| HOOPINGARNER, DWIGHT L. Apprenticeship in the building trades..... | 111 |
| Hooven-Owens-Rentschler Company..... | 756 |
| HOOPER, HERBERT C., annual report of..... | 1489 |
| awarded honorary membership in A.S.M.E..... | 67 |
| Vital need for greater financial support to pure-science research..... | 6 |
| excerpts from annual report of..... | 85 |
| HOWARTH, H. A. S. A graphical study of journal lubrication—III..... | 131 |
| Journal lubrication (C)..... | 1065 |
| Howdens system..... | 169 |
| HUBBELL, J. E. Damages and Accounting in Patent-Infringement Cases, book review..... | 538 |
| HULL, E. H., and KIMBALL, A. L. Vibration phenomena of a loaded unbalanced shaft while passing through its critical speed..... | 251 |
| Humidity, effect on fabrics..... | 173 |
| HUNT, W. F. Materials-handling problems and their solution (D)..... | 483 |
| HUTCHINSON, ELY C. Progress in hydraulics..... | 1417 |
| Hyde hydrogen method of welding..... | 516 |
| Hydrants and hose, standardization of (C)..... | 277 |
| Hydraulic air compression, an experimental investigation of..... | 888 |
| installations, small, speed governor for..... | 620 |
| Laboratories of Europe, book review..... | 1491 |
| laboratory, Alden, enlarged..... | 634 |
| machines, characteristic coefficients for..... | 949 |
| maintenance at Holtwood plant..... | 341 |
| propeller, Gill..... | 1056 |
| turbines, speed changes for sudden changes of load..... | 710 |
| washing of castings..... | 54 |
| Hydraulics, progress in..... | 1417 |
| Hydro supply, aspects of steam power in relation to a..... | 557 |
| Hydroelectric progress in Canada during 1925..... | 220 |
| Hydrogen, heat conductivity of air and..... | 621 |
| atomic, welding process..... | 515 |
| gas, effect of temperature on liberation of, by corrosion of iron and zinc..... | 1133 |
| -ion concentrations as applied to boiler waters, the potentiometric determination of..... | 1129 |
| method of welding, Hyde..... | 516 |
| welding process..... | 515 |
| Hygrometry in mining practice, note on..... | 239 |
| HYMANS, F. Deflection of a shaft at critical speed (C)..... | 765 |
| Hypoid gears..... | 771, (note on) 898 |
| HYSLOP, J. F..... | 613 |

I

| | |
|---|--------------|
| Ice, dry..... | 1050 |
| plants, raw-water, water treatment for..... | 959 |
| Iceless refrigerator cars..... | 863 |
| IDDLES, ALFRED. Design and test of Susquehanna station (D)..... | 368 |
| Ignition plug, lodge, hot-wire..... | 165 |
| Illinois, University of..... | 56 |
| Impact test, one per ingot..... | 54 |
| Imperial defense, a college of, for Great Britain..... | 866 |
| Indicator cards of internal-combustion engines, tangent method of analysis for..... | 1263 |
| diagrams..... | 771 |
| Industrial-boiler efficiencies..... | 412, (D) 926 |
| cooperation with War Department..... | 17 |
| designs, plight of..... | 702 |
| fuels..... | 847 |
| furnaces, discussion on..... | 356 |
| heat and power, editorial..... | 77 |
| Organization, Principles of, book review..... | 186 |
| plant, high steam pressures in the..... | 43, (D) 469 |
| plants, power-station accounting for..... | 1347 |
| plants, selecting a power and heat supply for..... | 567, 806 |
| power plants, high-pressure, design of..... | 1039 |
| power, supply of, discussion on..... | 504 |
| preparedness, note on..... | 470 |
| recovery of France..... | 697 |

- Industrial safety, editorial..... 281
 self-government, editorial..... 77
 significance of standardization..... 863
 Industry and university, cooperation between..... 184
 educational training for..... 1261
 frontiers of..... 182
 opportunities for engineers in..... 261
 research the prime mover of..... 181
 safety in, editorial..... 177
 Industry's annual tax for materials handling and suggestions for its elimination..... 1253
 Ingots, impact test for..... 54
 rail steel, French specifications..... 53
 steels, heterogeneity of..... 850
 steel, pouring, flow method of..... 272
 "Inoculation" with oil or tar..... 612
 Inspection, intelligent, sane specifications and..... 909
 keeps pace with products, editorial..... 1168
 methods, modern developments in..... 1435
 Institution of Mechanical Engineers..... 172
 Instruments and apparatus, test code on..... 382, 517
 Insulation, heat, for temperatures up to 1000 deg. Fahr. on other than flat surfaces, determination of the thermal conductivities of..... 1297
 Insulators, heat (see heat insulators)..... 1333
 INSULL, SAMUEL. Power developments of the Mississippi valley..... 292
 Interatomic forces and the strength of metals..... 1156
 Interborough Rapid Transit Co.'s 59th St. power station, new boiler equipment at..... 246
 Interconnections in Virginia and North Carolina..... 1036
 Interior ballistics, experiments in..... 819
 Internal-combustion engines, combined steam and, conversion of reciprocating-steam engines to..... 270
 engines, electric transmission for..... 205
 engines, solid-fuel..... 1466
 engines, tangent method of analysis for indicator cards of..... 1263
 locomotives and vehicles..... 471
 Internal heat of earth, steam apparatus for utilizing..... 374
 International contacts, editorial..... 374
 critical tables soon to be published..... 276
 Electrotechnical Commission meets in New York..... 535
 Electrotechnical Commission concludes its New York meeting..... 636
 Electrotechnical Commission, prominent foreign engineers and scientists to attend U.S. meeting of..... 390
 organization for standardization..... 622
 standardization conference..... 381
 Standards Association..... 965
 Investigation of Business Problems, book review..... 975
 Iron and zinc, corrosion of, effect of temperature on liberation of hydrogen gas by..... 1133
 carbonyl..... 753
 castings, permanent molds for..... 916
 cast, malleable..... 1175
 cast, Meehanite..... 752
 cast, testing..... 1175
 for piston rings..... 1056
 Iron from ilmenite ores, note on..... 918
 pipe, bare, dissipation of heat by..... 62
 protection by cadmium..... 508
 wrought, phosphorus in..... 619
 wrought, vs. steel..... 508
 Italian plant, peat gas as fuel in..... 613
- J**
- JACKLIN, H. M. Indicator diagrams..... 771
 JACKSON, JOHN PRICE. A Handbook of Safety and Accident Prevention, book review..... 1074
 Safety education (D)..... 639
 Safety in materials handling (D)..... 481
 JACOBS, A. M..... 264
 JACOBUS, D. S. Higher steam pressure in the industrial plant (D)..... 470
 Japanese number system..... 65
 16-ton military tank..... 619
 JARETZKY, M..... 1466
 JASPER, T. McLEAN. Factors of design of shock-absorbing and recuperating steel springs..... 487
 JEFFERSON, C. J. Graphical methods of calculation (D)..... 592
 JEFFREY, FRASER. High-speed induction motors and frequency changers (D)..... 354
 JEFFRIES, ZAV. Engineering and science in the metal industry..... 8
- JENKINS, H. L. Graphical methods of calculation (D)..... 592
 JEWETT, F. B. Motive and obligation..... 179
 Jig testing of coal, X-ray..... 1462
 JOACHIM, WILLIAM F. Research on oil-injection engines for aircraft..... 1123
 John Fritz medal awarded to Edward Dean Adams..... 285, 533
 JOHNSON, E. H. Mechanical loading in coal mines..... 456
 JOHNSON, S. C. Water-treating problems encountered in railroad practice..... 1023
 JONES, GEO. F..... 959
 JONES, LLOYD..... 620
 JONES, R. F..... 617
 Tension ratio and transmissive power of belts (D)..... 241
 JONES, R. R. Higher steam pressures in the industrial plant (D)..... 470
 JOSSE, E..... 855, 1151
 Journal lubrication—III, a graphical study of..... 131, (C) 1064, (C) 1065
 Judges, Federal, an appeal for adequate salaries for..... 79
 JUNKERS, DR..... 165
 Junkers engine..... 164
 JURASCHEK, FRANCIS..... 273
- K**
- KAJERCZIK, DR. W..... 169
 KALLAM, F. L. The termination of charcoal tests..... 1030
 Kansas City meeting of the A.A.A.S..... 179
 KAPLAN..... 268
 KARELITZ, GEORGE B. Charts for studying the oil film in bearings..... 128
 Graphical study of journal lubrication—III (D)..... 132
 KATES, EDGAR J. Diesel Engines, book review..... 1179
 KATTE, E. B. Diesel-electric locomotive and heavy electrification (D)..... 589
 KATZENSTEIN, MARTIN L. Auxiliaries for motor vessels—II (D)..... 829
 KAVANAUGH, W. K. Coal-mine mechanization (D)..... 460
 KEEN, G. W. The selection of fuel-burning equipment for generating stations..... 947
 KEENAN, J. H. Progress report on the development of steam charts and tables from the Harvard throttling experiments..... 144
 and WARREN, G. B. A machine for testing steam-turbine nozzles by the reaction method..... 227
 KEGERREIS, C. S..... 58
 KELLOGG, WM. H. The earnings of engineers (C)..... 1065
 Kelvin medal awarded to Sir Charles Algernon Parsons..... 1488
 KEMP and McLAREN..... 1465
 KEMP, C. NORMAN..... 1462
 KENDALL, H. P. Fundamental measurements in a cotton mill (D)..... 747
 KENNEDY, PAUL S. A study of varnish and lacquer finishes exposed to accelerated breakdown test..... 1291
 KENNELLY, A. E. The advancement of engineering in relation to the advancement of science..... 101
 Kent telerecorder..... 374
 KERCHEN, JOHN L. Growth of university extension training of non-college type for the industries of the West..... 689
 KERR, S. LOGAN and STROWGER, EARL B. Speed changes of hydraulic turbines for sudden changes of load..... 710
 KEUFFEL, C. W. High-speed induction motors and frequency changers (D)..... 355
 The making of special slide rules (D)..... 594
 KEYES, F. G. The temperature scale and the pressure standard employed in M.I.T. steam-research measurements..... 157
 Keys, gib-head and plain taper, note on..... 381
 KILLAM, HORACE G. Engineering aspects of treating textile water supplies (D)..... 748
 KIMBALL, A. L. Vibration phenomena of a loaded unbalanced shaft while passing through its critical speed (C)..... 380
 and HULL, E. H. Vibration phenomena of a loaded unbalanced shaft while passing through its critical speed..... 251
 KINN, R. O., CAPT..... 616
- KIRKPATRICK, S. D..... 761
 KLEINSCHMIDT, R. V. Notes on the steam-research work carried out at Harvard University..... 155
 KLEMIN, ALEX. The Savenius wing rotor, comment on..... 1479
 KNOBLAUCH..... 63, 64
 "Knock, anti-coefficient"..... 614
 anti-materials..... 614
 KNOWLES, CLARENCE R. Pretreatment of boiler feedwater..... 857, 1361
 Knowles Sole-flue oven..... 1464
 KNOX, JOHN D..... 272
 KNUDSEN, CARL. Centrifugal compressors for Diesel engines (D)..... 474
 KOLBE, PARKE REXFORD, DR., inaugurated as president of Brooklyn Polytechnic Institute..... 284
 KOUWENHOVEN, F. W. Testing of milk bottles and effect of design of bottle head upon breakage..... 597
 KREBS, F. W. The cold drawing of bar steel..... 448
 KREISINGER, HENRY. Design and test of Susquehanna station (D)..... 368
 KRIEGER, FRANZ..... 1150
 KRULL, F..... 1061
 KUGEMANN, W. E., JR..... 1470
 KURAISHI, BUNZABURO..... 61
 Kutter's formula, application to gases..... 1057
 KWARTZ, E. Proposed standard for drawing sizes and system of numbers for mechanical drawings..... 1143
- L**
- L G piston for automobiles..... 756
 Labor in tool manufacture, division of..... 756, 1038
 saving in tunneling..... 226
 Laboratories, Hydraulic, of Europe, book review..... 1491
 Lacquer, technology of wood stains and fillers for use with..... 1293
 wood finishes, the use of..... 1289
 LAHERGREEN, G. M..... 271
 LALLIÉ, W..... 850
 Lallié Maublane marine propeller..... 850
 Lake Shore station..... 369
 LAMPE, T. PETER..... 960
 LANDAU, DAVID. Helical springs (D)..... 491
 Shock-absorbing and recuperating springs (D)..... 493
 LANDERS, M. H. Materials-handling problems and their solution (D)..... 482
 Landing, forced, causes (C. T.)..... 1472
 -speed reduction (C. T.)..... 1472
 LANDIS, J. N. Design and test of Susquehanna station (C)..... 625
 LANE, R. S., TAGGART, J. M., and REYNOLDS, H. B. New boiler equipment at the Interborough Rapid Transit Co.'s 59th Street power station..... 246
 LANGMUIR, IRVING, DR..... 515
 LANNING, H. H..... 857
 LARRABEE, JOHN H..... 960
 LAUDAHN, W..... 1147
 Layout and equipment of industrial power plants..... 291
 LEA, F. C., PROF..... 1149
 Lead-treated gasoline, editorial..... 281
 tetraethyl..... 614
 tri-*p*-xylyl..... 614
 Leadership..... 274
 Leather Belting Exchange Foundation..... 616
 Leather-belting standardization proposed..... 174
 LEDOUX, J. W. Pipe-line air-inlet valves..... 467
 LEE, MYRON A. The Investigation of Business Problems, book review..... 975
 LEPEAU, M. P..... 1462
 LEHMANN, E. A. The safety of the Zeppelin airship..... 115
 LEITCH, H. W. Boiler and stoker performance at Hell Gate power station..... 1011
 Recent developments at Colfax Station Pittsburgh (D)..... 571
 LEMP, HERMANN. Electric transmission for internal-combustion engines..... 205
 LENT, DR..... 612
 LESHNER, C. E. Progress in fuels engineering..... 1416
 LESSLEYS, J. M. Phosphor-bronze helical springs (D)..... 493
 Shock-absorbing and recuperating springs (D)..... 491
 Springs for electrical measuring instruments (D)..... 494

- Wear experiments on cast-iron gear teeth (D)..... 600
- LEWIS, WILFRED. Wear experiments in cast-iron gear teeth (D)..... 601
- Leyden, cryogenic laboratory at..... 1470
- Library extension, tentative findings of the A.L.A. committee on..... 774
- Library Notes and Book Reviews..... 86, 186, 294, 395, 539, 642, 775, 871, 975, 1074, 1179, 1491
- Light and microorganisms, deterioration of fabrics caused by..... 172
- Lignite, burning (C.T.)..... 1472
- of North Dakota, economic use of, for steam generation..... 583
- powdered, as substitute for oil fuel on locomotives..... 60
- Limaçon..... 166
- Limits, a system of, for different kinds of fits (C)..... 279
- LIPETZ, A. I. Electric transmission for internal combustion engines (D)..... 214
- Locomotive testing plant..... 36, (C) 380
- Transmission of power on oil-engine locomotives—I and II..... 797, 929
- closure to above paper..... 1046
- Literature, imaginative. Suggestions for forming the reading habit, editorial..... 864
- LIVINGSTONE, C. J., GRUSE, W. A., and MARLEY, S. P. The influence of temperature, fuel and lubricant in forming engine carbon deposits..... 771
- Load factor..... 369
- speed changes of hydraulic turbines for sudden changes of..... 710
- Loading in coal mines, an experiment in combined cutting, mining and..... 451
- in coal mines, mechanical..... 456
- Locomotive boiler, heat transmission in..... 1048
- boiler, water-tube, McClellon..... 376
- boilers, pitting and corrosion in..... 375, 855
- compound three-cylinder..... 1058
- Diesel-electric, its relations to heavy electrification..... 585
- Diesel-electric, its various applications..... 585
- Diesel-electric, its field and advantages..... 587
- fuel, cinders as..... 760
- of today..... 1151
- oil-electric, advantages of over electrification on short-line and switching operations..... 588
- switching, gas-electric storage-battery..... 1469
- testing plant..... 36, (C) 379
- tests, multiple-pressure..... 1058
- three-cylinder, Baldwin..... 1469
- three-cylinder, Union Pacific..... 375
- turbo-condensing..... 958, 1059
- Locomotives and cars, heat-treated steel for (C. T.)..... 1163
- and vehicles, internal-combustion..... 471
- Diesel, mechanical transmission for (C. T.)..... 1473
- modern, preliminary power rating and tractive force of..... 1095
- new..... 760
- oil-engine, transmission of power on—I and II..... 797, 929
- powdered lignite as substitute for fuel oil for, steam turbine..... 169
- Texas-type..... 170
- to reduce rail stresses..... 856
- use of high steam pressure in..... 1195
- Lodge hot-wire ignition plug..... 165
- LOENING, G. C. The airship and its place in commerce (D)..... 577
- LOFTS, DAVID. Waste-heat boilers in steel mills (D)..... 1031
- LOMONOSSOFF, GEORG. Locomotive testing plant (C)..... 379
- London-Cape Town-London by air..... 496
- Looms, large (C. T.)..... 1473
- LORING, E. J. Graphical methods of calculation (D)..... 592
- Phosphor-bronze helical springs (D)..... 493
- Low-carbon steel at various temperatures, flow in a, note on..... 431
- Low-temperature carbonization..... 1464
- temperature carbonization of coal..... 1217
- temperature carbonization, Salerno process of..... 1463
- Lubricating oils, acidity in..... 1148
- steel-mill machinery, new methods of..... 1344
- Lubrication—III, a graphical study of journal..... 131
- Michell-bearing..... 1467
- LUCKE, CHARLES EDWARD. Engineering..... 1089
- LÖFFLER, PROP..... 59
- "Luminous" flames..... 612
- LUND, M. High-speed induction motors and frequency changers (D)..... 354
- Safety in materials handling (D)..... 481
- LYTLE, C. W. Progress in management engineering..... 1407
- ## M
- M.A.N. double-acting two-cycle Diesel engine..... 756
- Machinability..... 507
- of alloy steels, note on..... 709
- of hard spots in metals..... 372
- Machine design, non-technical features of..... 738
- design, the question mark in (C)..... 624
- fits, standardized (C)..... 1165
- shop practice, progress in..... 1424
- tool exhibition at Atlantic City, railway..... 730
- Tool Exhibit at New Haven gives evidence of new developments in industry..... 1071
- tool industries, New England conditions affecting..... 641
- tool industry, stabilization in..... 774
- tool section for the Museum of Peaceful Arts..... 631
- Machinery, foundry, exposition of..... 1177
- market in Spain, note on..... 1094
- Machines, hydraulic, characteristic coefficients for..... 949
- MACK, EDWARD, JR..... 615
- Mackinac, S.S., boiler explosion on..... 286
- MACNIDER, H., Assistant Secretary of War, address by..... 20
- MADSEN, SEREN. Modern sash and door manufacturing..... 1453
- MAGDEBURGER, EDWARD C. The modern oil engine..... 1315
- Magnesium-base alloys, paper on, presented at 1926 A.I.M.E. annual meeting on..... 394
- Magnetic ammonia-compressor valve..... 372
- MAGUERRE, DR..... 961
- Mail, air, operation of the, and its possible application to commercial operations..... 465
- MAILLOUX, C. O., DR., honorary president I.E.C..... 636
- MAIN, CHAS. T., award for 1926—Effect of the cotton gin upon the politics of the United States from 1787 to 1857, W. Cromwell Saylor..... 1397
- Fundamental measurements in a cotton mill (D)..... 747
- Power for textile mills..... 125
- and GUNBY, FRANK M. The cotton textile industry..... 999
- MAKEPEACE, C. S. Engineering aspects of treating textile water supplies (D)..... 749
- MALCOLM, V. T. Bolts for use in power-plant construction (D)..... 502
- Heat-treatment data on quality steel castings (D)..... 498
- Malleable cast iron..... 1175
- castings..... 1175
- iron, elimination of embrittlement in..... 505
- Management engineering, progress in..... 1407
- mechanical and material research in..... 579, 750
- Week..... 1172
- Week, editorial..... 1487
- Manganese in cast steels..... 1174
- Manufacturers' drawings, unethical use of, editorial..... 78, (C) 277, (C) 528, (C) 766
- MARBLE, E. H. Mechanical and material research in management (D)..... 750
- Engineering aspects of treating textile water supplies (D)..... 749
- Marine boilers, high-pressure water-tube..... 617
- Diesel engine, Mirreles, Bickerton and Day..... 271
- engine, Fairbanks-Morse..... 372
- oil engine..... 849
- power plant, modernized, note on..... 411
- propeller, Maublan-Lallié..... 850
- Markham retort..... 613
- MARKWART, A. H. Aspects of steam power in relation to a hydro supply..... 557
- MARLEY, S. P., GRUSE, W. A., LIVINGSTONE, C. J. The influence of temperature, fuel and lubricant in forming engine carbon deposits..... 771
- MARR, R. A..... 1471
- MARTIN, GEOFFREY..... 952
- MARTIN, J. C., JR. Fuel oil for railways..... 671
- MARX, CARL..... 1471
- MARX, GEO..... 1150
- MARX, G. H., and CUTTER, L. E. Closure to discussion on wear experiments on cast-iron gear teeth..... 601
- CUTTER, L. E., and GREEN, B. M. Some comparative wear experiments on cast-iron gear teeth..... 33
- Massachusetts Institute of Technology, report on progress in steam research at the..... 153
- steam-research measurements, temperature scale and pressure standard employed in..... 157
- Materials, engineering, present tendencies in..... 791
- handling and suggestions for its elimination, industry's annual tax for..... 1253
- handling, progress in..... 1409
- handling, safety in..... 475
- Mathematics is a language, editorial..... 1486
- MATHEWS, JOHN A. Present tendencies in engineering materials..... 791
- MATHEWSON, J. S. Spark arresters and forest fires..... 352
- Matter, fourth state of (films)..... 374
- Maublan-Lallié marine propeller..... 850
- MAYO, E. C. New England conditions affecting the machine-tool industries..... 641
- MCADAMS, W. H., and SHERWOOD, T. K. The flow of air and steam in pipes..... 1025
- MCALIFFE, EUGENE. Coal-mine mechanization (D)..... 460
- MCBRIDE, R. S. Complete gasification of bituminous coal..... 1213
- McClellon water-tube locomotive boiler..... 376, 856
- McCORMICK, CYRUS. Plant efficiency (D)..... 360
- McCook Field altitude biplane..... 263
- McCULLOUGH, H. F. Coal-mine mechanization (D)..... 461
- McDERMET, J. R. Higher steam pressures in the industrial steam plant (D)..... 469
- MCDONALD, P. B. The engineer and the English language, editorial..... 768
- McEwen-Runge process..... 1464
- MCINTIRE, C. V..... 1464
- McKEAGE, J. A. Circular saws—their cutting on various woods..... 1005
- Modern sawing machinery..... 1135
- McLAIN, R. H. Safety in materials handling (D)..... 481
- McLAREN, KEMP and..... 1465
- McLAUGHLIN, GEO. D. Cooperation between industry and university..... 184
- McMILLAN, L. B..... 62
- MACQUIGG, C. E..... 952
- MEARS, A. H. Phosphor-bronze helical springs (D)..... 493
- Measurements, fundamental, in a cotton mill—general discussion..... 432
- Measuring and gaging terminology (C)..... 278
- heat transmission, methods that have been used and are being used for..... 1337
- Meat, electrical defrosting of..... 514
- Mechanical drawing at the Ford Apprentice School, teaching of (C)..... 860
- drawings, proposed standard for drawing sizes and system of numbers for..... 1143
- drawings, saving money on, by using slanting letters (C)..... 860
- drive, automotive train with..... 790
- engineering curriculum..... 501
- engineering graduates, recent, salary curves of..... 285
- engineering in the cracking, heating, and cooling of oil..... 673
- engineering, progress and prospects in (A.S. M.E. Professional Division Reports)..... 1407
- engineering, progress in, editorial..... 76
- MECHANICAL ENGINEERING, statistics on, for 1925..... 81
- Mechanical gas producers..... 743
- loading in coal mines..... 456
- springs, the specification and control of..... 808
- Mechanization of coal mines, editorial on..... 390
- Mechanizing of our coal mines..... 458
- Meehanite cast iron..... 752
- MEEKER, R. L. Plant efficiency (D)..... 361
- MELLER, H. B. Smoke abatement, its effects and its limitations..... 1275
- Mellon Institute in Pittsburgh..... 62
- Menai tubular bridge..... 509
- Mercerization..... 1464
- Merchant-marine fleet, United States Government, fuel conservation in..... 989
- Mercury compressor evolved from the Archimedes screw pump..... 1228

- Mercury, hot oil or, steam reheating by..... 1151
vapor boilers, marine..... 59
world's..... 1050
- MERICA, PAUL D..... 952
- MERKTY, T. B. J. Industrial furnaces (D)..... 356
- MERRIAM, C. F. Graphical methods of calculation (D)..... 592
- MERSON, J. W. Industrial furnaces (D)..... 358
"Met."..... 373
- Metal, cold-press finishing of..... 809
cutting temperatures..... 506
industry, engineering and science in the..... 8
molds, permanent, casting in..... 54
springs, design and manufacture of..... 484
ventilating pipe, collapse of..... 573
- Metales, el Arte de los (book)..... 750
- Metallic materials, fusion-joining of, in aircraft construction..... 1240
- Metallurgy and Its Influence on Modern Progress, book review..... 643
ferrous, year's progress in..... 1443
- Metals, cold-worked, papers, presented at 1926 A.I.M.E. annual meeting on..... 394
dispersal or "sputtering" of..... 1470
endurance properties of non-ferrous, paper presented at 1926 A.I.M.E. annual meeting on..... 394
machinability of hard spots in..... 372
some attempts to measure the drawing properties of..... 119
strength of, interatomic forces and..... 1156
testing for aircraft..... 124
- Metropolitan-Vickers phase advancer..... 1402
- METTLER, C. G. Experiments in interior ballistics (D)..... 825
- MEYER, AD..... 1149
- Meyers "Midget"..... 1461
- Michell-bearing lubrication..... 1467
crankless engine..... 371
- Michigan, commercial aeronautics in..... 161
- Microorganisms, deterioration of fabrics caused by light and..... 172
- "Midget," Meyers..... 1461
- Midgley..... 614
- Military tank for Japan, 16-ton..... 619
- Milk bottles, the testing of, and the effect of design of bottle head upon breakage..... 597
- MILLER, S. W. Autogenously and electrically welded boilers and containers (D)..... 968
Fusion-welded pressure vessels..... 221
The design of dished heads of pressure vessels..... 845
- MILLER, SPENCER, Auxiliaries for motor vessels—II (D)..... 828
- MILLIKAN, ROBERT ANDREWS. Award of A.S.M.E. Medal to..... 867
- Milling-cutter standardization proposed..... 174
cutters, theory of..... 1203
machine, high-production, note on..... 450
- Mills, pulverizer..... 758
- Mills, textile, power for..... 125
- Miner's Freedom, book review..... 775
- Mines, British Safety in Mines Research Board..... 620
- Mines, coal, an experiment in combined cutting, mining and loading in..... 451
coal, mechanical loading in..... 456
coal, mechanizing of our..... 458
coal, mechanization of, editorial..... 390
- Mining and loading in coal mines, an experiment in combined cutting..... 451
- Mirrlees, Bickerton and Day marine Diesel engine..... 271
- Mississippi valley, power developments of..... 292
- MITCHELL, WM. E..... 1149
- MIVAGI, OTOGORO..... 167
- MOCHEL, N. L. Bolts for use in power-plant construction (D)..... 502
- MOELLER, DR..... 611
- Molder, electric, discussion on..... 351
- Molds, metal, permanent, casting in..... 54
permanent, for making iron castings..... 916
- MOLLIER, R..... 84
- MONNETT, OSBORN. Present status of the smoke problem..... 1284
- Monoplane, Ryan, with demountable engine..... 1050
- MONROE, WM. S. Electric power development in the Chicago district..... 292
- MONTGOMERY, W. S., JR., and ENDERS, E. R., JR. Some attempts to measure the drawing properties of metals..... 119
- MOORE, E. V..... 953
- MOORE, F. E. Materials-handling problems and their solution (D)..... 483
- MOORE, H. P. Applied Elasticity, book review of..... 294
- MOORE, M. J. P. Development of a unit coal pulverizer (D)..... 462
- MORRELL, JACQUE C..... 1052
- MORRISON, L. H. Progress in oil- and gas-power engineering..... 1421
- MORTON, J. W., and NEWELL, A. B. Auxiliaries for motor vessels—I..... 715; II, 826
- MOSELEY, W. S. Unethical use of manufacturers' drawings (C)..... 528
- MOSS, SANFORD A. Closure to discussion on centrifugal-compressors for Diesel engines. Technical progress in aeronautics (D)..... 473
The airship and its place in commerce (D)..... 577
- Motilin..... 753
- Motive and obligation..... 179
- Motor, bisynchronous..... 1461
car, French, of today..... 1388
electric, self-synchronizing, Eclancher..... 751
fuels..... 511
rail car, double-drive..... 169
vessels, auxiliaries for—I..... 715; II, 826
- Motorized drive, individually, and group drive..... 889
- Motors, high-speed induction, and frequency changers, discussion on..... 354
- Motorship *Gripsholm*, Swedish-American line..... 81
- Motorships, U. S. Shipping Board..... 272
- Motyl..... 753
- Moving sidewalks in Paris..... 64
- MUDGE, J. B. The selection of proper material for tool manufacture..... 727
- MULHERON, W. Auxiliaries for motor vessels—II (D)..... 827
- Mullite refractories..... 633
- Mumford, A. G., Ltd..... 1058
- MUMFORD, PATRICK FOSTER. An experimental investigation of hydraulic air compression..... 888
- Munich, German museum in..... 21
- Municipal flying-field size (C. T.)..... 1162
- Munters and von Platen refrigerating apparatus..... 171
- MURRAY, W. S. Diesel-electric locomotive and heavy electrification (D)..... 589
- Muscle Shoals disposal, Congress to debate, note on..... 1479
- Museum, engineering, as a dynamic influence..... 76
German, in Munich..... 21
science, South Kensington, London..... 104
- MYERS, D. M. Carbon dioxide as an index of fatigue (D)..... 494
Higher steam pressures in the industrial plant (D)..... 470
- N**
- Napier-Lion aero engines..... 1460
- NARUSE, MASAO..... 166
- Nash plant, flywheel manufacture at..... 617
- NATHAN, SIR FREDERIC..... 55
- National industrial standardization, principles recommended to guide..... 964
Research endowment..... 160
- Naval warfare, aircraft in, editorial..... 1069
- Navigator (U. S. Navy Yard tug)..... 1052
- Nelson, battleship, note on..... 1431
- "Neps"..... 1464
- NEWBAKER, E. J. Coal-mine mechanization (D)..... 461
- NEWBIGIN, H. T. A graphical study of journal lubrication—III (D)..... 132
Journal lubrication (C)..... 1064
- NEWCOMB, C. L. Apprenticeship (D)..... 639
Plant efficiency (D)..... 361
- NEWCOMB, ROBERT E. Industrial safety, editorial..... 281
Vitalizing vs. centralizing organizations..... 1251
- NEWELL, A. B., and MORTON, JOHN W. Auxiliaries for motor vessels—I..... 715; II, 826
- New Haven Machine Tool Exhibit, progress as exemplified at the, editorial..... 1068
gives evidence of new developments in industry..... 1071
considerable progress in standardization made during..... 1164
- NEWKIRK, BURT L. Shaft rubbing..... 830
Vibration phenomena of a loaded unbalanced shaft while passing through its critical speed..... 255
- Newsprint industry, production control in the..... 48
- NICHOLAS, JOHN EDWARD. The influence of elasticity and errors in tooth shape on stresses in gears..... 893
- NICHOLLS, P. Status of heat transmission data and knowledge in the refractory field..... 1307
- NICHOLS, W. W. Unethical use of manufacturers' drawings, editorial..... 78
- NIELSEN, HARALD..... 954
- NOACK, W. G..... 1149
- Normal pitch the index of gear performance..... 27
- NORMAN, C. A. Transmission of power on oil-engine locomotives (D)..... 1043
- North Carolina and Virginia, interconnections in..... 1036
- North Dakota lignite, economic use of, for steam generation..... 583
- NORTH, O. D..... 956
- Northwestern University, Armour Institute to merge with..... 285
- NORTON, F. H..... 953
- NORTON, JOHN T..... 1471
- Nozzle, steam-, research..... 171
- Nozzles, steam-turbine, machine for testing by the reaction method..... 227
- NUSSBILT, WILHELM..... 62
- Nusselt's views on similarity..... 1155
- Nut dimensions—wrench design—stresses on bolts..... 919
- Nuts, bolts and, international conference of experts on standardization of..... 623
- NYE, T. H. Simplified methods of production (D)..... 640
- O**
- Oakland, Cal..... 57
- OATLEY, H. B. Progress in railroad mechanical engineering..... 1427
- OBERHUBER, W. Bolts for use in power-plant construction (D)..... 501
- Obligation, motive and (in research)..... 179
- ODELL, W. W..... 754
- Oil- and gas-burning furnaces for power plant use, combined..... 683
and gas-power engineering, progress in..... 1421
burners, atomization by..... 1052
-conservation board, Federal, meets..... 289
-electric locomotive, advantages of, over electrification on short-line and switching operations..... 588
engine for bus service..... 848
-engine fuel lines, splitting (C. T.)..... 1163, 1472
-engine generators, direct-connected..... 511
engine, high-efficiency, note on..... 594
-engine locomotives, transmission of power on..... 797, 929, (D) 1043
engine, marine..... 849
engine, modern..... 1315
engine, Peugeot, heavy-oil engine for motor cars..... 615
engines as a drive for pipe-line pumps..... 663
engines, piston for..... 1054
- Federal Conservation Board, preliminary report of..... 998
film in bearings, charts for studying..... 128
from coal..... 953
fuel for railways..... 671
fuel, Ray rotary burner for..... 754
fuel, replacement by powdered lignite on locomotives..... 60
gas as a factor in the production of oil..... 590
hot, or mercury, steam reheating by..... 1151
shale-, industry in California, development of..... 731
-injection engines for aircraft, research on..... 1123
mechanical engineering in the cracking, heating and cooling of..... 673
or tar, "inoculation" with..... 612
pumping, deep-well, an analysis of..... 941
refinery, modernized..... 761
research..... 54
- Oils for high-speed drilling (C. T.)..... 1163
fuel, specific gravity and viscosity in..... 371
lubricating, acidity in..... 1148
petroleum, specific heats of..... 1051
- Old Dominion meeting at Richmond, Va..... 1171
- Textile, wood industries, management, power, education and training for the industries, fuel conservation in the U. S., and merchant marine sessions.
- O'MAHONEY, W. W..... 1152
- Open letter to students of mechanical engineering, editorial..... 1066
-hearth furnaces..... 1061
-side machine frames (C)..... 860

- OPPITZ, A. 61
 Organization, international, for standardization . . . 622
 ORMOND, A. M. Higher steam pressures in the industrial plant (D) . . . 470
 ORROK, GEO. A. 169
 Radiation in boiler furnaces . . . (D) 137, 218
 Report of the executive committee of the steam table fund . . . 151
 OSBORNE, N. S., and STIMSON, H. F. Report on progress in steam research at the Bureau of Standards . . . 152
 OSTWALD, WALTER 753
 O'TOOLE, EDWARD. An experiment in combined cutting, mining, and loading in coal mines . . . 451
 Overproduction, fear of, note on . . . 1128
 O. Y. (pseudonym) 1060
- P**
- P. L. (pseudonym) 752
 Pacific Coast, education and training of apprentices on the . . . 686
 PAINE, SIDNEY B. Power for textile mills (D) . . . 128
 PAINE, SIDNEY S. Fundamental measurements in a cotton mill—general discussion . . . 432
 Fundamental measurements in a cotton mill, closure to . . . 747
 Paint primers in protecting wood, value of . . . 1457
 Pantagraver 960
 Paper mill, pass-out steam engine for . . . 1153
 sizes proposed, trimmed, standardization of . . . 965
 Parachute, standard army, development and construction of . . . 1234
 Paris, moving sidewalks in 64
 PARKER, G. L. Clamp carriers for wood gluing (D) . . . 641
 PARKER, HENRY C., and GREER, WILLARD N. The potentiometric determination of hydrogen-ion concentrations as applied to boiler waters . . . 1129
 PARKER, McREA. Engineering aspects of treating textile water supplies (D) . . . 748
 PARR, S. W. 375, 1464
 PARRY, E. 1147
 PARSONS, SIR CHAS. ALGERNON, awarded Kelvin medal . . . 1488
 Parsons turbo-alternator, 50,000-kw. 513
 Pass-out steam engine for a paper mill . . . 1153
 Patent-Infringement Cases, Damages and Accounting in, book review . . . 539
 Patent Office committee submits recommendations
 Office effectiveness, impediments to, editorial . . . 280
 Office relief bill 1487
 PAULSEN, F. 1148
 PAWLIKOWSKI, RUDOLPH 848
 PAXTON, CHARLES H. Unethical use of manufacturers' drawings (C) . . . 766
 PAYMAN, W. 620
 Peaceful Arts, Museum of, machine-tool section for . . . 631
 Pearlite cast iron 1174
 Peat, Committee, Canadian 953
 fuel, cost per ton of 753
 gas as fuel in an Italian plant 613
 machines 953
 utilization of 753
 PELTZ, G. M. Industrial furnaces (D) . . . 356
 PENNEY, F. H. Group drive and individually motorized drive . . . 889
 PENNOCK, G. A. 757
 The division of labor in tool manufacture . . . 1038
 PERKINS, G. H. Power for textile mills (D) . . . 128
 Permanent metal molds, casting in . . . 54
 Perry air preheater 853
 PERRY, THOMAS D. Technical training in wood-working . . . 108
 PETERSON, A. Centrifugal compressors for Diesel engines (D) . . . 473
 The heat-balance method of testing centrifugal compressors (D) . . . 259
 PETERSON, R. E. An investigation of stress concentration by means of plaster-of-Paris specimens . . . 1449
 Petri, Schuckert-, method of combined powdered fuel and grate firing . . . 953
 Petroleum engineering, progress in . . . 1412
 oils, specific heats of 1051
 Peugeot heavy-oil engine for motor cars . . . 615
 Phase advancer, Metropolitan-Vickers . . . 1462
 PHELPS, S. M. Tests of firebrick for spalling . . . 633
 Philadelphia, civil aviation meeting at . . . 1070
 Electric Company 757
 Phosphor-bronze helical springs from the standpoint of precision instruments . . . 488
 Phosphorus and sulphur, effect of, in steel . . . 1174
 influence on cast iron 1174
 in wrought iron 619
 Photoelectric cell as a smoke detector . . . 514
 Photomicrography, note on 260
 Pyroxylin-base lacquer 1291
 Piano-Playing Mechanisms, book review . . . 775
 PICKELL, WM. C. Teaching mechanical drawing at the Ford Apprentice School (C) . . . 860
 PIGOTT, R. J. S. Recent developments at Colfax Station (D) . . . 572
 Pins and washers, note on 381
 Pipe, DeLavaud centrifugally cast . . . 265
 flanges, steel, and flanged fittings, tentative American standard for . . . 858
 gas radiation during flow through . . . 1047
 iron, bare, dissipation of heat by . . . 62
 -line air-inlet valves 467
 -line pumps, oil engines as a drive for . . . 663
 metal ventilating, collapse of . . . 573
 -thread tap standardization proposed . . . 174
 Pipes, flow of air and steam in . . . 1025
 of annular cross-section, fluid flow in . . . 1112
 steam, for extra high pressure and temperature . . . 1468
 Piston, all-light-metal 756
 deeply concave 1054
 for oil engines 1054
 -ring friction, testing rig to determine . . . 164
 rings, iron for 1056
 temperatures and heat flow 1055
 Pit heaps 163
 Pitch, normal, the index of gear performance . . . 27
 Pitting and corrosion in boiler flues . . . 167
 and corrosion in locomotive boilers . . . 855
 locomotive boiler 375
 Pittsburgh coal, burning on chain grates, refractory service conditions in furnaces . . . 1115
 gas as fuel 847
 Planer, open-side 58
 PLANK, R. 63
 Plant efficiency, discussion on . . . 360
 Plaster-of-Paris specimens, an investigation of stress concentration by means of . . . 1449
 "Plastic process" 54
 Platen, von, and Munters refrigerating apparatus . . . 171
 Plates, Theory of, book review . . . 87
 Plating, chrome 960
 chromium, of printing plates 378
 chromium, of steel auto parts 582
 Plenty-Still steam-oil engine 1147
 Plow bolts, tentative American standards for . . . 1480
 Plugs, fireclay 55
 Pobjoy aircraft engine 1466
 Polar flights, editorial 632
 POLLAK, FRITZ, DR. 1462
 Polopas 1462
 Popular Research Narratives—a second volume . . . 87
 PORTER, P. A. The specification and control of mechanical springs (D) . . . 814
 Posture, industrial—fatigue—waste elimination . . . 814
 Potentiometric determination of hydrogen-ion concentrations as applied to boiler water . . . 1129
 POTTER, W. B. Diesel-electric locomotive and heavy electrification (D) . . . 589
 Powdered coal for Ashley Street station . . . 291
 fuel and grate firing, combined, Schuckert-Petrit method of . . . 953
 fuel, experiences with 758
 POWELL, J. A. Design and test of Susquehanna station (C) . . . 861
 POWELL, J. R. Recent advances in method of glue evaluation (D) . . . 351
 POWELL, S. T. Water Committee denies approval of products for water treatment . . . 971
 Power and heat, industrial, editorial . . . 77
 and heat supply for industrial plants, selecting . . . 806
 conference, Basel 972
 conference, Chicago holds successful . . . 290
 development, electric, in the Chicago district . . . 292
 developments of the Mississippi valley . . . 125
 for textile mills 504
 industrial, supply of, discussion on . . . 1103
 losses in cotton textile mills 797, 929
 on oil-engine locomotives, transmission of . . . 929
 -plant construction, bolts for use in, discussion on . . . 500
 plant, modernized marine, note on . . . 411
 -plant, steam, development of . . . 369
 -plants, combined oil- and gas-burning furnaces for use in . . . 683
 plants, design of high-pressure industrial . . . 1039
 plants, diphenyl oxide bi-fluid 815
 plants, layout and equipment of industrial . . . 291
 purchased vs. generated, editorial . . . 389
 rating, preliminary, and tractive force of modern locomotives . . . 1095
 required for ship propulsion, estimating . . . 723
 -station accounting for industrial plants . . . 1347
 steam, aspects of, in relation to a hydro supply . . . 557
 transmission of, on oil-engine locomotives—
 I 797
 water and steam, in California utilities . . . 662
 Praetorius 265
 Precision instruments, phosphor-bronze helical springs from standpoint of . . . 488
 method of grinding for quantity production . . . 1161
 Preheater, air, Perry 853
 Preheaters 169
 air, comparative performance of . . . 562
 Preheating air 759
 combustion air 852
 pump 1151
 Preparedness, industrial, note on . . . 470
 Pressure distribution over a U.S.A.-27 aerofoil with square wing tips—model tests . . . 1401
 -gage standardization proposed . . . 174
 standard and temperature scale employed in the M.I.T. steam-research measurements . . . 157
 vessels, electrically welded, strength of . . . 762
 vessels, design of dished heads of . . . 845
 vessels, fusion-welded 221
 vessels, welded, tests on 378
 waves recorded photographically . . . 620
 Pressures, higher steam, in the industrial plant . . . 43, (D) 469
 PRIES 265
 Prime movers, landmarks in the history of . . . 1385
 Primers, paint, in protecting wood, the value of . . . 1457
 Priming and foaming of boiler water with suggestions for research, present knowledge of . . . 1364
 Principle of coinciding states 64
 Principles of Industrial Organization, book review . . . 186
 PRINDLE, EDWIN J. An appeal for adequate salaries for Federal judges . . . 79
 Printing plates, chromium plating of . . . 378
 progress in (C) 175, (C) 278
 Probability law, compound-interest law and, as applying to grinding . . . 951
 Producer tar, Diesel engines burning . . . 1465
 Wollaston 509
 Producers, gas, mechanical 743
 Production control in the newsprint industry . . . 48
 influence of design on 442
 maintaining, note on 925
 standardization and quality, editorial . . . 864
 Profiles, toothed 166
 Progress and prospects in mechanical engineering . . . 1407
 in aeronautics 1432
 in fuels engineering 1416
 in hydraulics 1417
 in machine-shop practice 1424
 in management engineering 1407
 in materials handling 1409
 in mechanical engineering, editorial . . . 76
 in oil- and gas-power engineering . . . 1421
 in petroleum engineering 1412
 in railroad mechanical engineering . . . 1427
 in steam-power engineering 1419
 in steam research 151
 in textile mechanical engineering . . . 1425
 in the woodworking industries 1411
 report on development of steam charts and tables from the Harvard throttling experiments . . . 144
 Propeller, hydraulic, Gill 1056
 marine, Maublane-Lallié 850
 Propellers, air, interaction between airplane structures and . . . 1050
 efficiency of 1148
 Propulsion, ship, estimating power required for . . . 723
 Providence and San Francisco meetings of the A.S.M.E., note on . . . 392
 A.S.M.E. holds New England meeting at . . . 638

- Public, dedicated to the, editorial..... 1169
 service, grasping an opportunity for, editorial..... 532
 works, campaign to secure a national department of..... 1170
 works, meeting of committee on organization of..... 391
 PUJHARA, T..... 508
 Pulp making, Ramar process for..... 1471
 Pulverized fuel, boiler furnaces for, combustion volumes in design of..... 754
 -fuel firing..... 163
 -fuel firing, gyro..... 266
 -fuel-firing system..... 1462
 -fuel motor..... 848
 fuel, present practice in burning..... 290
 Pulverizer, gyro..... 266
 mills..... 758
 unit coal, development of..... 462
 Do., authors' closure to discussion on..... 463
 Pump, Bates..... 272
 gears, "Roloid"..... 1469
 liquid, rotary..... 273
 preheating..... 1151
 rotary, conical..... 1058
 Pumping, deep-well oil, an analysis of..... 941
 screw, Archimedes, mercury compressor evolved from..... 1228
 Pumps (C. T.)..... 1473
 and fans, papers, presented at the 1926 A.I.M.E. annual meeting on..... 393
 pipe-line, oil engines as a drive for..... 663
 Purdue University..... 58
 Pure-science research, vital need for greater financial support to..... 6
 PVE, Tizard and..... 616
 Pyrex condenser tubes, heat flow in..... 173
- Q**
- Quackery, protecting the public against, editorial..... 630
 QUINAN, K. B..... 613
- R**
- Racing engine, six-cylinder..... 374
 Radiation, gas, during flow through a pipe..... 1047
 in boiler furnaces..... 133, 218
 RAGOT, C. L. The making of special slide rules (D)..... 594
 Rail, car, motor, double-drive..... 169
 specification, French..... 53
 stresses..... 857
 stresses, locomotives to reduce..... 856
 Railroad industry, opportunities in the (C. T.)..... 1473
 mechanical engineering, progress in..... 1427
 organization..... 1247
 practice, water-treating problems encountered in..... 1023
 Railroads, progress of water treatment on..... 1024
 looking ahead in respect to..... 273
 Railway brakes, investigation of..... 285
 cars, ball bearings and roller bearings on, note on..... 355
 -equipment tests at Purdue University..... 1167
 machine-tool exhibition at Atlantic City..... 730
 water treatment, future development..... 857
 Railways, fuel oil for..... 671
 Ramar process for pulp making..... 1471
 RAMSES, M. S..... 756
 RANDALL, G. B. Development of a unit coal pulverizer (D)..... 462
 Higher steam pressures in the industrial plant (D)..... 469
 RAWDON, HENRY S..... 508
 Ray rotary fuel-oil burner..... 754
 READ, T. T. The world's output of work..... 531
 Reading habit, suggestions for forming the, editorial..... 864
 Rectilinear motion, a simple mechanism for transforming circular into (C)..... 861
 Recuperating steel springs, factors of design of shock-absorbing and..... 487
 REED, F. C., and ERNST, F. A. A high-pressure relief valve..... 595
 Refinery, oil, modernized..... 761
 Refractories..... 1389
 fireclay..... 612
 higher..... 163
 Institute, second annual meeting of American..... 632
- Refractories:
 mullite..... 633
 service conditions in furnaces burning Pittsburgh coal on chain grates..... 1115
 Refractory bricks, expansion of..... 633
 field, status of heat transmission data and knowledge in the..... 1307
 Refrigerating apparatus, von Platen and Munters, compressors..... 274
 machine, Altenkirch..... 1060
 machine, water-vapor..... 1060
 machine, water-vapor, Follain..... 1152
 Refrigeration, household mechanical, editorial..... 1068
 the standard ton of..... 65
 with dual evaporation..... 1059
 Refrigerator cars, bunkers on, divided-basket..... 1058
 cars, iceless..... 863
 Refuse fuel..... 163
 Registration of chemists, editorial..... 177
 Reheating, steam..... 759
 steam, by hot oil or mercury..... 1151
 REIHER, H. DR.-ING..... 1156
 REINECKER, N. G. Design and tests of Susquehanna station (D)..... 368
 REINER, J. RUSSELL. Slanting letters on drawings save money (C)..... 860
 REIST, H. G. Ring spring (D)..... 494
 Relief valve, high-pressure..... 595
 RENGLI..... 269
 Repeated bending stress..... 1149
 Research, A.S.M.E., contribution to industry..... 1073
 Association, British Electrical and Allied Industries..... 1154
 Board, Fuel, British..... 54
 committee on boiler-furnace refractories, progress report of A.S.M.E..... 1115
 duplication in, editorial..... 1488
 ideas, evaluating..... 183
 industrial, administration of..... 182
 in gas industry..... 55
 in Holland, scientific and industrial..... 1470
 in water vapor..... 62
 mechanical and material, in management..... 579
 Narratives, Popular, second volume issued..... 87
 national, endowment..... 160
 oil..... 54
 pure-science, vital need for greater financial support to..... 6
 steam, at the Massachusetts Institute of Technology, report on progress in..... 153
 steam-, measurements, temperature scale and pressure standard employed in M.I.T..... 157
 steam-nozzle..... 171
 steam, progress..... 151
 steam, report of progress in, at the Bureau of Standards..... 152
 steam table, editorial..... 176
 steam-, work carried out at Harvard University, notes on the..... 155
 suggestions for, and present knowledge of foaming and priming of boiler water..... 1364
 —the prime mover of industry..... 181
 Retorts, revolving, low-temperature carbonization in..... 56
 Revisions and addenda to boiler construction code..... 1166
 REYNOLDS, H. B. Progress in steam-power engineering..... 1419
 REYNOLDS, H. B., TAGGART, J. M., and LANE, R. S. New boiler equipment at the Interborough Rapid Transit Co.'s 59th Street power station..... 246
 REYNOLDS, S. H..... 514
 RHODES, F. L. Some questions of policy in industrial-standardization work..... 862
 Rhone engine, super..... 263
 RICE, GEORGE S. Coal-mine mechanization (D)..... 461
 RICE, W. E., BERGER, L. B., and SHERMAN, RALPH A. Refractories..... 1389
 RICE, W. E., and SHERMAN, RALPH A. Refractories service conditions in furnaces burning Pittsburgh coal on chain grates..... 1115
 Richmond Station of the Philadelphia Electric Co. Va., Old Dominion meeting at..... 1171
 (See also Old Dominion Meeting)
 RICKARD, S. D..... 1052
 RICKETTS, EDWIN B. Some results of condenser operation..... 1312
 RIETHEL, PROFESSOR..... 62
 RINEHART, E. Industrial furnaces (D)..... 359
 Ring, piston-, friction, testing rig to determine..... 164
 spring..... 139
 Rings, piston, iron for..... 1056
 RIPPER, DR..... 1462
 Rittinger's law..... 951
 Rivets, belt, small, tinners' and coopers', tentative American standards for..... 1480
 ROBERTS, PERCY R..... 1467
 ROBERTSON, J. D. Mechanical and material research in management (D)..... 750
 ROBINSON, A. W. Auxiliaries for motor vessels —II (D)..... 830
 ROBINSON, ERNEST L..... 961
 ROBINSON, H..... 620
 ROBINSON, M. G. Development of a unit coal pulverizer (D)..... 463
 The heat-balance method of testing centrifugal compressors..... 256
 ROCKEFELLER, J. W., JR. Springs for electrical measuring instruments (D)..... 494
 ROE, JOSEPH W. A machine-tool section for the Museum of Peaceful Arts..... 631
 ROGERS, B. W., and FRITZ, H. E. Rubber as a resistant to corrosion and abrasion..... 844
 ROGERS, J. F., and WINDETT, V. Mechanical gas producers..... 743
 ROGERS, T. S. Plant efficiency (D)..... 360
 ROGERS, W. S. Carbon dioxide as an index of fatigue (D)..... 495
 ROHR, W. H. Woodworking machines (D)..... 640
 Roll-grinding machine..... 271
 Roller bearings and ball bearings on railway cars, note on..... 355
 ROLLER, L. H..... 378
 Rolling mill, "cluster," Bliss..... 620
 ROLLOW, J. G. Combined oil- and gas-burning furnaces for power-plant use..... 683
 "Roloid" pump gears..... 1469
 ROSE, C. E. Test of world's largest cottonseed-oil mill..... 740
 ROSECRANS, CRANDALL Z..... 57
 ROSZAK, CHAS..... 62
 Rotary compressor..... 371
 drilling machine..... 959
 liquid pump..... 273
 pump, conical..... 1058
 Rotor, Savanius wing (C)..... 1479
 ship and its possibilities..... 632
 vessel Barbara..... 849
 ROWE, R. C..... 274
 Royal Typewriter Co., Dedicated to the public, editorial..... 1169
 Rubber as a resistant to corrosion and abrasion..... 844
 Rubbing, shaft..... 830
 RUGGLES, BRIG.-GEN. C. L' H. Sane specifications and intelligent inspection..... 909
 Rummelsburg, central station at..... 169
 Runge-McEwen process..... 1464
 RUSSELL, JOHN SCOTT..... 274
 Ryan monoplane with demountable engine..... 1050
 RYAN, W. F. Higher steam pressures in the industrial plant..... 43
- S**
- S.A.E. technical papers at summer meeting..... 771
 Safeties, buffers and other similar equipment, elevator tests of, to be standardized..... 527
 Safety and Accident Prevention, a Handbook of, book review..... 1074
 and the Holland tunnels, editorial..... 1168
 code, aeronautic, approved as U. S. national standard..... 282
 code, cranes, derricks, and hoists, new sectional committee to develop..... 1484
 code development, recent..... 1072
 exhibit at Annual Meeting..... 1485
 in industry, editorial..... 177
 in materials handling..... 475
 in Mines Research Board, British..... 620
 in textile industry..... 764
 industrial, editorial..... 281
 pledge read at sessions of 1925 Annual Meeting..... 74
 Saguenay River..... 173
 St. Louis Section, smoke campaign of..... 971
 ST. JOHN, ANCEL..... 1465
 Salary curves of recent mechanical-engineering graduates..... 285
 Salerno process of low-temperature carbonization..... 1463
 Sand and gravel, paper presented at 1926 A.I.M.E. annual meeting on..... 394

- San Francisco and Providence meetings of A.S.M.E., note on..... 392
- Santa Fe apprenticeship plan, note on..... 908
- Sash and door manufacturing, modern..... 1453
- Savenius wing rotor (C)..... 1479
- Saw doctor, modern, editorial..... 1488
- SAWDON, W. M. Tension ratio and transmissive power of belts (D)..... 240
- SAWIN, N. N. Theory of milling cutters..... 1203
- Sawing machinery, modern..... 1135
- Saws, circular, their cutting on various woods..... 1005
- SAYLOR, W. CROMWELL. Effect of the cotton gin upon the politics of the United States from 1787 to 1857..... 1387
- Scale- and heat resisting cast irons..... 1174
- SCARRATT, A. W..... 760
- SCHAEFER, C. L..... 266
- SCHAPHORST, W. F. Tension ratio and transmissive power of belts (D)..... 243
- Schleiermacher method..... 621
- SCHMIDT, EDWARD C., and SNODGRASS, JOHN M. The use of high steam pressure in locomotives..... 1195
- SCHMOLKE, HERR..... 64
- SCHNEIDER, ERNST..... 621
- SCHNURLE, A..... 955
- Schnurle solid-fuel Diesel type engine..... 955
- Schuckert-Petri method of combined powdered fuel and grate firing..... 953
- SCHÜLE..... 63
- SCHWARTZ, H. A. Permanent molds for making iron castings..... 916
- SCHWITZER, P. H. Tangent method of analysis for indicator cards of internal-combustion engines..... 1263
- Science, advancement of, the advancement of engineering in relation to..... 101
- and engineering..... 337
- basic, editorial..... 176
- in a new role, editorial..... 390
- in the metal industry, engineering and..... 8
- museum, South Kensington, London..... 104
- the prince pays his respects to, editorial..... 970
- SLATER, K. C. Gas as a factor in the production of oil..... 590
- SCOTT, FRANK A., photograph of..... 17
- SCOTT, H. F. The supply of industrial power..... 505
- SCOTT, W. KILBURN..... 164
- Screw machine, Swiss automatic..... 373
- pump, Archimedes, mercury compressor evolved from..... 1228
- threads, Anglo-American conference on..... 381
- Segregated steel..... 373
- SEIBERT, CHARLES JAY. The earnings of engineers (C)..... 766
- Self-government, industrial, editorial..... 77
- synchronizing electric motor, Eclancher..... 751
- SEMENTA, DR. GUIDO, president I.E.C..... 636
- Semi-Diesel engines, ignition plug for starting..... 165
- Service, grasping an opportunity for public, editorial..... 532
- Sesquicentennial Exposition..... 770
- SEWARD, H. L. Closure to discussion on graphical methods of calculation..... 592
- Fuel conservation in the United States Government merchant-marine fleet..... 989
- Shaft at critical speed, deflection of (C)..... 765
- loaded unbalanced, vibration while passing through its critical speed (C)..... 380
- loaded unbalanced, vibration phenomena of while passing through critical speed..... 251
- rubbing..... 830
- Shafts and holes, fits of..... 166
- Shale, oil extraction from..... 1051
- oil industry in California, development of the..... 731
- oils, anti-knock motor fuels from..... 1052
- Shearing test for gray cast iron..... 1175
- Sheet-doubling machines, automatic..... 1470
- metal and wire gages, engineers to unify..... 527
- metal gages, unification of wire and..... 275
- Shenandoah disaster..... 1146
- SHEPARD, J. A. Auxiliaries for motor vessels—II (D)..... 828
- Materials-handling problems and their solution (D)..... 481
- Safety in materials handling (D)..... 481
- SHERMAN, RALPH A., and RICE, W. E. Refractories service conditions in furnaces burning Pittsburgh coal on chain grates..... 1115
- SHERMAN, RALPH A., RICE, W. E., and BERGER, L. B. Refractories..... 1389
- SHERWOOD, T. K., and McADAMS, W. H. The flow of air and steam in pipes..... 1025
- S. L. M. speed-change gear..... 165
- "Shield, heat"..... 756
- Ship propulsion, estimating power required for..... 723
- Shipping containers, scientifically developed, discussion on..... 349
- Shock-absorbing and recuperating steel springs, factors of design of..... 487
- Short-line and switching operations, advantages of the oil-electric locomotive over electrification on..... 588
- Sibley College, viscometry in..... 62
- Sidewalks, moving, in Paris..... 64
- SIEMS, V. BERNARD. Municipal water supplies and the effect of trade wastes in relation to the use of water in power-plant practice..... 1372
- Silica gel, air drying by..... 1061
- Sillimanite..... 163
- SILVERSTEIN, S. M. The technology of wood finishes and their application..... 423
- The technology of wood stains and fillers for use with lacquer..... 1293
- SIMS, C. J..... 616
- Similarity, Nusselt's views on..... 1155
- Size determination, examples of..... 842
- SKINNER, C. E. Progress of standardization in industry..... 1029
- Standardization and quality production, editorial..... 864
- Variety through standardization..... 327
- Slanting letters on drawings save money (C)..... 624, (C) 860
- Slide rules, the making of special, discussion on..... 593
- SLIGH, T. S. Volatility of automobile fuels..... 771
- SMITH, A. W. The engineer and liberal education, editorial..... 531
- Suggestions for forming the reading habit, editorial..... 864
- Smith carbo-coal process..... 1464
- SMITH, E. S. Graphical methods of calculation (D)..... 592
- SMITH, H. W..... 1057
- SMITH, L. B. Report on progress in steam research at Massachusetts Institute of Technology..... 153
- SMITH, OBERLIN, dies..... 973
- Smoke abatement, its effects and its limitations..... 1275
- laws, anti-..... 1275
- detector, photoelectric cell as a..... 514
- must go..... 971
- problem, present status..... 1284
- producing chemicals (C. T.)..... 1472
- Snead electric heat-treating and annealing process..... 59
- SNODGRASS, JOHN M., and SCHMIDT, EDWARD C. The use of high steam pressure in locomotives..... 1195
- Sole-flue oven, Knowles..... 1464
- Solid-fuel Diesel-type engines..... 955
- fuel engines, editorial..... 1067
- fuel internal-combustion engines..... 1466
- South Kensington, London, science museum..... 104
- Soviet aviation..... 1461
- Spain to Argentina by air..... 282
- Spalling, mechanism of..... 952
- tests of firebrick for..... 633
- Spark arresters and forest fires..... 352
- SPARROW, STANWOOD W..... 268
- Specific speed..... 268
- Specifications, promoting the use of..... 178
- same and intelligent inspection..... 909
- use of, in foreign trade..... 275
- Speed-change gear, S. L. M..... 165
- changes of hydraulic turbines for sudden changes of load..... 710
- effects..... 857
- specific..... 268
- SPELLER, F. N., and TEXTER, C. R. Engineering aspects of treating textile water supplies (D)..... 748
- Progress report of sub-committee No. 5 on corrosion of boilers and effect of treated water in accelerating or relieving these troubles..... 1378
- The problem of steam boiler corrosion..... 1017
- SPENCE, J. C. Has the need for apprenticeship passed (D)..... 639
- SPERRY, ELMER A. Transmission of power on oil-engine locomotives (D)..... 1043
- SPICACCI, A. R. Tapered-roller bearings..... 861
- SPITZGLASS, J. M. CO₂ and excess air (C)..... 1063
- "Splints"..... 163
- Split bearing, boring as a unit (C. T.)..... 1163
- Splitting oil-engine fuel lines (C. T.)..... 1163
- Spontaneous combustion of coal..... 55
- SPRING, L. W. Bolts for use in power-plant construction (D)..... 501
- Heat-treatment data on quality steel castings (D)..... 498
- Spring Meeting papers, synopses of those not published in Supplement to June issue..... 691
- Spring, the ring..... 139
- Springs, helical..... 372
- helical, of square or rectangular steel, formulas for the design of..... 484
- mechanical, the specification and control of..... 808
- metal, design and manufacture of..... 484
- steel, shock-absorbing and recuperating, factors of design of..... 487
- "Spun" iron pipes..... 265
- Spur-gear tooth form..... 1485
- gear tooth form, proposed standard for..... 1157
- "Sputtering" or dispersal of metals..... 1470
- STABLEY, T. C. Hydraulic maintenance at Holt wood plant..... 341
- Stainless-steel type, chromium steels of..... 952
- Stains and fillers, wood, for use with lacquer, technology of..... 1293
- Standard, proposed, for drawing sizes and system of numbers for mechanical drawings..... 1143
- proposed, for spur gear tooth form..... 1157
- Standardization and quality production, editorial..... 864
- by law, editorial..... 389
- conference, international..... 381
- considerable progress in, made during New Haven machine tool exhibition..... 1164
- coordination in..... 534
- Engineering and Industrial..... 65, 174, 275, 381, 527, 622, 763, 862, 965, 1062, 1164, 1484
- engineering, some remarks on (C)..... 965
- equipment (C. T.)..... 1473
- in industry, progress of..... 1029
- industrial significance of..... 863
- international organization for..... 622
- national industrial, principles recommended to guide..... 964
- pioneers in..... 963
- recent developments in..... 763
- variety through..... 327
- work, industrial, some questions of policy in..... 862
- Standards, savings through the use of..... 1062
- tentative American, for tinner's, cooper's, and belt rivets, small rivets, and plow bolts..... 1480
- tentative American, for steel pipe flanges and flanged fittings..... 858
- STANTON, T. E..... 851
- STARKWEATHER, WM. G. Industrial boiler efficiencies (D)..... 927
- Starter (gas) system for aircraft engines..... 1460
- "States, coinciding, principle of"..... 64
- Station design..... 369
- Stations, generating, the selection of fuel-burning equipment for..... 947
- modern, experiences with..... 758
- Staveley system of low-temperature carbonization..... 613
- Steam and air in pipes, flow of..... 1025
- apparatus for utilizing the internal heat of the earth..... 374
- boiler corrosion, problem of..... 1017
- boiler development, editorial..... 1169
- boiler industry, improvement of..... 1016
- chart, new, note on..... 1042
- charts and tables from Harvard throttling experiments, progress report on development of..... 144
- electrical energy produced by, and hydraulically..... 1149
- engine, early days of..... 274
- engine, future of..... 853
- engine, pass-out, for a paper mill..... 1153
- engines, conversion of reciprocating to combined, and internal-combustion engines..... 270
- generation, economic use of North Dakota lignite for..... 583
- generation, superpressure..... 512
- generator, Combustion Engineering Corporation..... 167
- high pressure, use of, in locomotives..... 1195

| | | | | | |
|---|------|--|---|--|----------|
| Steam-line, long, delivery..... | 1468 | STIMSON, H. F., and OSBORNE, N. S. Report on Progress in steam research at the Bureau of Standards..... | 152 | Tar or oil, "inoculation" of gas with..... | 612 |
| -nozzle research..... | 171 | Stinnes, Mathias, colliery, coal distillation at the..... | 162 | producer, Diesel engines burning..... | 1465 |
| plant, 60-atmosphere-pressure..... | 854 | Stinson Detroit cabin plane..... | 612 | TATNALL, R. R. Tension ratio and transmissive power of belts (D)..... | 245 |
| power and water power in California public utilities..... | 662 | STODOLA..... | 63 | TAYLOR, H. D. Vibration phenomena of a loaded unbalanced shaft while passing through its critical speed (D)..... | 254 |
| power, aspects of, in relation to a hydro supply..... | 557 | Stoker and boiler performance at Hell Gate power station..... | 1011 | Technical training in woodworking..... | 108 |
| -power engineering, progress in..... | 1419 | experiences..... | 759 | Telerecorder for distant flow measurements..... | 374 |
| -power plant development..... | 369 | underfeed, air furnace with..... | 613 | Temperature, effect on liberation of hydrogen gas by corrosion of iron and zinc..... | 1133 |
| pressures and temperatures..... | 369 | Stokers, traveling-grate, furnace design for..... | 510 | -entropy diagram for air and the diatomic gases O ₂ , N ₂ , and CO..... | 1329 |
| pressures, higher, in the industrial plant..... | 43 | Storage tanks for various depths of the liquid and various angles of tilt of the tank, contents of spherically dished heads of (C)..... | 966 | of a boiler furnace..... | 962 |
| reheating..... | 759 | STOREY, N. W. The Diesel-electric locomotive, its field and advantages..... | 587 | and pressure, extra high, steam pipes for use with..... | 1468 |
| reheating by hot oil or mercury..... | 1151 | STOUT, Wm. B..... | 263 | scale and pressure standard employed in M.I.T. steam-research measurements..... | 157 |
| research at the Bureau of Standards, report of progress in..... | 152 | Straightening, cold..... | 54 | variations in Diesel engines, note on..... | 526 |
| research at the Massachusetts Institute of Technology, report on progress in..... | 153 | Strength of gear teeth..... | 1105 | Temperatures, metal-cutting..... | 506 |
| -research measurements, temperature scale and pressure standard employed in M.I.T..... | 157 | Stress concentration by means of plaster-of-Paris specimens, an investigation of..... | 1449 | generated by hardness tests..... | 507 |
| research, progress in..... | 151 | Stresses in gears, the influence of elasticity and errors in tooth shape on..... | 893 | TENNEY, E. H. Radiation in boiler furnaces (D)..... | 138 |
| research work carried out at Harvard University, notes on the..... | 153 | on bolts—nut dimensions—wrench design..... | 919 | TENNEY, W. H. Powdered coal for Ashley Street station..... | 291 |
| service at 100 atmos. pressure..... | 59 | rail, locomotives to reduce..... | 856 | Tension ratio and transmissive power of belts..... | 240 |
| specific heat at high pressures..... | 63 | STROWGER, EARL B., and KERR, S. LOGAN. Speed changes of hydraulic turbines for sudden changes of load..... | 710 | author's closure to discussion on..... | 245 |
| supersaturated, theory of..... | 948 | Structural-steel welding..... | 974 | Tents, fabrics of, testing..... | 172 |
| table fund, report of the executive committee of the..... | 151 | Student Prize Award Papers for 1925: A study of the effect of end shape on the towing resistance of a barge model, Harry Pease Cox, Jr..... | 833 | Test code on instruments and apparatus..... | 382 |
| table, progress made in the technique of computing from Harvard data..... | 159 | Some attempts to measure the drawing properties of metals, W. S. Montgomery, Jr., and E. Ray Enders..... | 119 | of Susquehanna station, design and..... | 362 |
| table research, editorial..... | 176 | Student Prize Award Papers for 1926: An investigation of stress concentration by means of plaster-of-Paris specimens, R. E. Peterson..... | 1449 | Testing cast iron..... | 1175 |
| tables, consistency of..... | 515 | Pressure distribution over a U.S.A.-27 aerofoil with square wing tips—model tests, Cecil G. Heard..... | 1401 | metals for aircraft..... | 124 |
| total heat of, at pressures up to 1000 lb. per sq. in..... | 1154 | Students in mechanical engineering, open letter to, editorial..... | 1066 | plant, locomotive (C)..... | 379 |
| traps, use of, checking boiler performance..... | 167 | Sulphur and phosphorus, effect of, in steel..... | 1174 | plant, locomotive..... | 36 |
| -turbine nozzles, machine for testing by the reaction method..... | 227 | SUMMERALL, C. P., MAJ.-GEN., address by..... | 20 | rig to determine piston-ring friction..... | 164 |
| -turbine plant..... | 272 | Super Rhone engine..... | 263 | steam-turbine nozzles by the reaction method, a machine for..... | 227 |
| turbine, reaction, limiting efficiency of..... | 961 | Supercharger, gear-driven plane..... | 161 | Tests, boiler, credibility of..... | 377 |
| turbines, graphical design of..... | 60 | Supercharging..... | 166 | gas-engine, thermodynamic analysis of..... | 56 |
| turbines in Switzerland..... | 1149 | aero-engine progress..... | 1461 | Texas-type locomotives..... | 170 |
| Steaming with various types of coal..... | 55 | Superheat turbines..... | 169 | University of..... | 62 |
| Steel analyses in the small shop (C. T.)..... | 1163 | Superpressure steam generation..... | 511 | TEXTER, C. R., and SPELLER, F. N. Engineering aspects of treating textile water supplies (D)..... | 748 |
| auto parts, plating with chromium..... | 582 | Supersaturated steam, theory of..... | 948 | Textile industry, cotton..... | 999 |
| bar, cold drawing of..... | 448 | SUPLEE, H. H. Diesel-electric locomotive and heavy electrification (D)..... | 589 | industry, problems in the..... | 746 |
| castings..... | 1178 | The industrial recovery of France..... | 697 | industry, safety in..... | 764 |
| castings, quality, heat-treatment data on..... | 497 | Recent advances in methods of glue evaluation (D)..... | 353 | mechanical engineering, progress in..... | 1425 |
| effect of sulphur and phosphorus in..... | 1174 | Surge tank..... | 164 | mills, cotton, power losses in..... | 1103 |
| embrittlement of..... | 1368 | Survey of Engineering Progress..... | 53, 161, 263, 369, 506, 610, 751, 847, 951, 1047, 1146, | mills, power for..... | 125 |
| flanges and flanged fittings..... | 1485 | Susquehanna station, design and test of..... | 1460 | water supplies, engineering aspects of treating..... | 435 |
| flanges and flanged fittings, note on..... | 381 | SWANN, J. J. Plant efficiency (D)..... | 360 | ing..... | 748 |
| heat treated, for cars and locomotives (C. T.)..... | 1163 | SWEET, JOHN EDSON, proposed memorial at Cornell to..... | 538 | THAU, A..... | 56 |
| ingots, pouring, flow method of..... | 272 | Swiss automatic screw machine..... | 373 | "Therm"..... | 55 |
| low-carbon, flow at various temperatures, note on..... | 431 | Switzerland, steam turbines in..... | 1149 | as a unit of boiler capacity (C)..... | 624 |
| -mill machinery, lubrication of, new methods for..... | 1344 | Symbols and abbreviations, doings of committee on..... | 381 | Thermodynamic analysis of gas-engine tests..... | 56 |
| mills, waste-heat boilers in..... | 1031 | Synthetic ammonia..... | 217 | THILENIUS, FRED. Oil engines as a drive for pipe-line pumps..... | 663 |
| more per man, note on..... | 887 | SZEPESI, EUGENE. Fundamental measurements in a cotton mill (D)..... | 746 | THOMA, DIETER, DR..... | 1150 |
| pipe flanges and flanged fittings, tentative American standard for..... | 858 | TAGGART, J. M., LANE, R. S., and REYNOLDS, H. B. New boiler equipment at the Interborough Rapid Transit Co.'s 59th Street power station..... | 246 | THOMAS, L. E. Bolts for use in power-plant construction (D)..... | 500 |
| segregated..... | 373 | Tangent method of analysis for indicator cards of internal-combustion engines..... | 1263 | THOMPSON, S. E. Influence of design on production (D)..... | 640 |
| surface, hard..... | 1050 | Tank, 16-ton, military, for Japan..... | 619 | THOMPSON, WILLIAM H. Auxiliaries for motor vessels—II (D)..... | 830 |
| tool..... | 508 | surge..... | 164 | Throttling experiments, Harvard, progress report on development of steam charts and tables from..... | 144 |
| wage rates low, German..... | 1459 | Tanks, storage, contents of spherically dished heads of, for various depths of the liquid and various angles of tilt of the tank (C)..... | 966 | Thrush, Blackburne, light-plane engine..... | 270 |
| wrought iron vs..... | 508 | Tap-drill sizes development of..... | 445 | Thurston and Towne lectures..... | 6, 8, 67 |
| STEEL, D. A..... | 376 | Tapered-roller bearings (C)..... | 861 | TIGER, H. L. Engineering aspects of treating textile water supplies..... | 435 |
| Steels, alloy, machinability of, note on..... | 709 | | | TIMOSHENKO, S. Helical springs (D)..... | 491 |
| carbon, paper, presented at 1926 A.I.M.E. annual meeting..... | 394 | | | Theory of Plates, book review..... | 87 |
| cast, manganese in..... | 1174 | | | Vibration phenomena of a loaded unbalanced shaft while passing through its critical speed (D)..... | 254 |
| chromium, of stainless-steel type..... | 952 | | | TIMOSHENKO, S., and BAUD, R. V. Strength of gear teeth..... | 1105 |
| STEIN, C. H. Advantages of the oil-electric locomotive over electrification on short-line and switching operations..... | 588 | | | Tinners', coopers' and belt rivets, small rivets, and plow bolts, tentative American standards for..... | 1480 |
| Stelling..... | 621 | | | TITTERTON, G. Technical progress in aeronautics (D)..... | 316 |
| Stern-Bush boring machine..... | 89 | | | TIZARD and PYE..... | 616 |
| STETSON, GEO. A. Progress report of sub-committee No. 9 on bibliography..... | 1373 | | | TIZARD, H. T..... | 955 |
| STEVENS, JOHN A., appointed as honorary chairman of A.S.M.E. Boiler code committee..... | 80 | | | Tolerances and allowances for metal fits, report published on..... | 178 |
| Industrial boiler efficiencies (D)..... | 928 | | | TOLTZ, MAX, fund for assistance to students..... | 288 |
| Selecting a power and heat supply for industrial plants (D)..... | 806 | | | Tool holders and tool-post openings, note on..... | 381 |
| Technical progress in aeronautics (D)..... | 316 | | | manufacture, division of labor in..... | 1038 |
| STEVENSON, EARL P. The frontiers of industry..... | 182 | | | manufacture, selection of proper material for..... | 727 |
| STEWART, ARTHUR L. Hypoid gears..... | 771 | | | | |
| STRICH, W. F. Safety code for woodworking plants (D)..... | 640 | | | | |
| Still-Plenty steam-oil engine..... | 1147 | | | | |
| STILLWELL, L. B. A platform for engineering foundation..... | 78 | | | | |

T

| | |
|---|----------|
| Tool manufacturing, division of labor in | 756 |
| steel | 508 |
| Toothed profiles | 166 |
| Tornado furnace | 754 |
| Tosi vertical-tube boilers | 614 |
| Torsion, repeated, tester for | 61 |
| Torsional stress, constant | 1149 |
| Towing resistance of a barge model, study of the effect of end shape on | 833 |
| Towne and Thurston lectures | 6, 8, 67 |
| Track bolts, note on | 381 |
| Tractive force and preliminary power rating of modern locomotives | 1095 |
| Tractor, caterpillar, development of the, and its application to industry | 657 |
| Trade associations, statistical activities of, note on | 20 |
| Train, automobile, with mechanical drive | 760 |
| Training, educational, for industry | 1261 |
| trades | 1257 |
| Transforming circular into rectilinear motion, a simple mechanism for (C) | 861 |
| Transmission chains and sprockets, progress of work on | 65 |
| electric, for internal-combustion engines | 205 |
| mechanical, for use on Diesel locomotives (C. T.) | 1473 |
| of power on oil-engine locomotives—I and II | 797 |
| Transmissive power of belts, tension ratio and | 240 |
| Transport, air, future of | 761 |
| Transportation, air | 370 |
| Trojan car | 511 |
| TRUMP, C. C. Industrial furnaces (D) | 358 |
| TRUMP, E. N. Industrial boiler efficiencies (D) | 926 |
| TSCHAPPAT, W. H. Experiments in interior ballistics | 819 |
| T-slots and bolts, basis for determining the proportions of standard | 838 |
| their bolts, nuts, and cutters | 1158 |
| Tubes and tube nests, heat transfer from flowing air to | 1155 |
| condenser, pyrex, heat flow in | 173 |
| Tunneling, labor saving in | 226 |
| TUPHOLME, C. H. S. | 510 |
| Turbine—condenser expansion gasket, Alden | 1467 |
| exhaust-gas | 167 |
| steam, reaction, limiting efficiency of | 961 |
| steam, Trona Corporation | 937 |
| Turbines, steam efficiencies, comparison of | 960 |
| for sudden changes of load, speed changes of hydraulic | 710 |
| steam, graphical design of | 60 |
| superheat | 169 |
| water, high-speed, Berne hydroelectric power station | 269 |
| water, of high specific speed | 268 |
| Turbo-alternator, Parsons, 50,000-kw | 513 |
| -alternators | 1057 |
| -condensing locomotive | 958 |
| -condensing locomotives | 1059 |
| Turbulence, importance of, through condenser | 958 |
| TURNBULL, DOUGLAS C., JR. The theory of super-saturated steam | 948 |
| TURNBULL, W. F. Graphical methods of calculation (D) | 592 |
| Two-stage combustion | 372 |
| TYRRELL, JAMES J. Industrial boiler efficiencies (D) | 926 |

U

| | |
|--|-------------|
| UEHLING, F. F. Radiation in boiler furnaces (D) | 138 |
| Underfeed stoker, air furnace with | 613 |
| Unethical use of manufacturers' drawings, editorial | 78, (C) 766 |
| Unit coal pulverizer, development of a | 462 |
| United Engineering Societies' Library reports successful year | 283 |
| report for 1925 | 296 |
| U. S. Bureau of Engraving and Printing | 378 |
| civil aviation in | 1092 |
| from 1787 to 1857, politics of, effect of the cotton gin upon | 1397 |
| Government merchant-marine fleet, fuel conservation in the | 989 |
| University and industry, cooperation between in research | 184 |
| extension training, growth of, of noncollege type for the industries of the West | 689 |
| University of Illinois | 56 |
| UPTON, G. D., PROF. | 62 |

V

| | |
|---|---------------|
| VAKSDAL, ALFRED. Industrial boiler efficiencies (D) | 928 |
| Selecting a power and heat supply for industrial plants (D) | 806 |
| Valence of the anti-knock element | 615 |
| Valve, ammonia-compressor, magnetic | 327 |
| high-pressure relief | 595 |
| regulating, air—"Gulp" | 272 |
| safety high-lift, Cockburn | 1467 |
| Valves, compressor | 274 |
| motor-operated | 1150 |
| pipe-line, air-inlet | 467 |
| VAN OOT, B. H. The science of foremanship | 1404 |
| Variety through standardization | 327 |
| Varnish and lacquer finishes exposed to accelerated breakdown tests, a study of | 1291 |
| VAUCLAIR, S. M. Internal-combustion locomotives and vehicles | 471 |
| Vd/r as a parameter in hydraulics | 1147 |
| Vehicles and locomotives, internal-combustion | 471 |
| VEHSLAGE, H. E. Progress in printing (C) | 175 |
| Ventilating pipe, metal, collapse of | 573 |
| VER PLANCK, W. E. Centrifugal compressors for Diesel engines (D) | 473 |
| Vessels, motor, auxiliaries for—I | 715, (II) 826 |
| pressure electrically welded, strength of | 762 |
| pressure, welded, tests on | 378 |
| triple-screw | 171 |
| VIALI, W. A. Has the need for apprenticeship passed? | 409 |
| Vibration phenomena of a loaded unbalanced shaft while passing through its critical speed | 251, (C) 380 |
| Vickers, Metropolitan, phase advancer | 1462 |
| VILLERS, R. | 1061 |
| Virginia and North Carolina, interconnections in | 1036 |
| Viscometry in Sibley College | 62 |
| Viscosity and specific gravity in fuel oils | 371 |
| Vitalizing vs. centralizing organizations | 1251 |
| VIVIAN, A. C. The Metropolitan-Vickers phase advancer | 1461 |
| Volatility of automobile fuels | 771 |
| VON KELLER, THEODORE R. | 960 |
| VON MILLER, OSKAR, DR. The German Museum in Munich | 21 |
| recent visit of | 82 |
| portrait of | 82 |
| VOORHEES, L. W., and HAMPTON, L. C. An analysis of deep-well oil pumping (D) | 946 |
| VROOM, G. B. | 371 |

W

| | |
|---|------|
| Wage rates of German steel workers, low | 1459 |
| Wages, the secret of, editorial | 630 |
| WAGNER, W. L. Autogenously and electrically welded boilers and containers (D) | 967 |
| WAITE, CHAS. C. | 59 |
| WALDEN, A. E. Industrial furnaces (D) | 358 |
| WALKER, ARTHUR L. Metallurgy and Its Influence on Modern Progress, book review | 643 |
| WALLACE, G. W. Development of the shale-oil industry in California | 731 |
| WALLACE, L. W. Impediments to patent-office effectiveness, editorial | 280 |
| WAMSLER, F. | 62 |
| War Department, industrial cooperation with the | 17 |
| WARNER, WORCESTER R., awarded honorary membership in A.S.M.E. | 67 |
| WARREN, G. B., and KEENAN, J. H. A machine for testing steam-turbine nozzles by the reaction method | 227 |
| Waste elimination—fatigue—industrial posture | 814 |
| -heat boilers in steel mills | 1031 |
| Water, boiler, conditioning with special reference to high operating pressure and corrosion | 317 |
| Committee denies approval of products for water treatment | 971 |
| effect of treated | 1373 |
| power and steam power in California utilities | 662 |
| railway, treatment, future development of | 857 |
| Service Committee of the American Railway Engineering Association | 375 |
| softeners, zeolite | 857 |
| supplies, engineering aspects of treating textile | 435 |
| supplies, engineering aspects of treating | 748 |
| supplies, municipal, and the effect of trade wastes in relation to the use of water in | |

| | |
|---|--------------|
| -power-plant practice | 1372 |
| -treating problems encountered in railroad practice | 1023 |
| treatment for raw-water ice plants | 959 |
| treatment on railroads, progress of | 1024 |
| turbines, high-speed, Berne hydroelectric power station | 269 |
| turbines of high specific speed | 268 |
| -vapor refrigerating machine | 1060 |
| -vapor refrigerating machine, Follain | 1152 |
| vapor research | 62 |
| WATERMAN, B. F. Wear experiments on cast-iron gear teeth (D) | 601 |
| WATERMAN, W. N. | 959 |
| Waters, boiler, the potentiometric determination of hydrogen-ion concentrations as applied to | 1129 |
| WATERS, E. O. Tension ratio and transmissive power of belts | 240 |
| Vibration phenomena of a loaded unbalanced shaft while passing through its critical speed (D) | 255 |
| WATKINS, J. R. Recent advances in methods of glue evaluation | 352 |
| Scientifically developed shipping containers (D) | 349 |
| Waves, pressure, recorded photographically | 620 |
| stilling effect on | 374 |
| Wear and corrosion in engines, the causes of | 771 |
| experiments on cast-iron gear teeth, some comparative | 33 |
| Weather reports, special, commercial airways, note | 1403 |
| WEBB, CHAS. J. | 614 |
| WEIDLEIN, E. R., address of, at second annual meeting of American Refractories Institute | 632 |
| The administration of industrial research | 182 |
| WEINMAN, R. A. | 516 |
| WEIR, G. & J., LTD. | 620 |
| Welded boilers and containers, autogenously and electrically | 603, (D) 967 |
| pressure vessels, strength of | 762 |
| pressure vessels, fusion | 221 |
| joints, note on | 629 |
| joints, X-ray investigation of | 1471 |
| pressure vessels, tests on | 378 |
| Welding, arc, for building construction, note on | 950 |
| fusion, applications to structural work, editorial | 1067 |
| hydrogen, Hyde method of | 516 |
| new processes of | 515 |
| process, atomic-hydrogen | 515 |
| structural-steel | 974 |
| Wellman L-type gas producer | 164 |
| "Well-type" furnace | 754 |
| WELL, W. M. Standardization of hydrants and hose (C) | 277 |
| Werkspoor Diesel engine | 1466 |
| West, industries of, growth of university extension training of non-college type for | 689 |
| WETTSTEIN, F. A. Higher steam pressures in the industrial plant (D) | 470 |
| WHAREN, G. B. Economic use of North Dakota lignite for steam generation | 583 |
| WHEELER, W. S. Engineering aspects of treating textile water supplies (D) | 749 |
| WHITBECK, J. E. Operation of the air mail and its possible application to commercial operations | 465 |
| WHITE, A. E. Closure to discussion on paper on heat-treatment data on quality steel castings | 500 |
| Heat-treatment data on quality steel castings | 497 |
| WHITE, WM. BRAID. Progress in the woodworking industries | 1411 |
| WHITMAN, W. G. | 1051 |
| WHITTEMORE, H. L. Autogenously and electrically welded boilers and containers (D) | 967 |
| WIBORG, H. G. Safety code for mechanical power-transmission apparatus (D) | 639 |
| WICKENDEN, W. E. On the choice of engineering as a profession and its possibilities | 769 |
| The engineering scene | 794 |
| Wiener-Lokomotiv-Fabriks-Aktiengesellschaft | 512 |
| WIKANDER, O. R. The ring spring | 139 |
| WILLIAMS, JOHN | 167 |
| WILLIAMS, SCOTT, LT.-COL. | 371 |
| WILSON, P. H. | 266 |
| Wilson, Wylie, process of boiler blow-off | 1151 |
| WILCOX, F. H., and JAYES, J. C., JR. Waste-heat boilers in steel mills | 1031 |

- WILLARD, J. A. Fundamental measurements in a cotton mill (D)..... 747
 Plant efficiency (D)..... 361
 WILLETT, FRANCIS A. Selecting a power and heat supply for industrial plants (D)..... 807
 WILLIAMS, C. L. Technical training in wood-working (C)..... 862
 WILLIAMS, W. J. Waste-heat boilers in steel mills (D)..... 1035
 WINDETT, V., and ROGERS, J. F. Mechanical gas producers..... 743
 Windmill tests..... 1050
 Wing rotor, Savanius (C)..... 1479
 Winmill-retort process..... 613
 Wire plant, Ford..... 1471
 Wire and sheet-metal gages, unification of..... 275
 and sheet-metal gages, engineers to unify..... 527
 WITHERINGTON, SIDNEY. Diesel-electric locomotive and heavy electrification (D)..... 589
 WOLL, MATTHEW. Educational training for industry..... 1261
 Wollaston producer..... 509
 Wood finishing—a glance ahead..... 1286
 finishes and their application, technology of... 423
 gluing, design and application of clamp carriers for..... 427
 industries division of A.S.M.E., summary of replies to questionnaire sent out by.... 108
 industries, problems of the..... 349
 WOOD, JOSEPH KAYE. The specification and control of mechanical springs..... 808
 Wood lacquer finishes, the use of..... 1289
 stains and fillers for use with lacquer, the technology of..... 1293
 value of paint primers in protecting..... 1457
 -waste firing (C. T.)..... 1472
 WOOD, W. P. Bolts for use in power-plant construction (D)..... 500
 Bolts for use in power-plant construction, closure to discussion on..... 503
 Woods, various, cutting of circular saws on..... 1005
 Woodworking industries, progress in..... 1411
 -machinery design, refinements in..... 415
 technical training in..... 108, (C) 862
 Worcester Polytechnic Institute trustees open Alden hydraulic laboratory..... 634
 Work, world's output of..... 531
 World's output of work..... 531
 Worm gearing, automotive..... 771
 Wrench design—stresses on bolts—nut dimensions..... 919
 -head bolts and nuts and wrench openings, tentative American standard for..... 537
 -head bolts and nuts..... 1485
 -head bolts and nuts, note on..... 381
 WRIGHT, ROY V..... 274
 WRIGLEY, GEORGE. Power losses in cotton textile mills..... 1103
 Wrought iron, phosphorus in..... 619
 Wuest metallurgical furnace..... 161
 WUNDERLICH, HANS..... 756
 Wylie-Wilson process of boiler blow-off..... 1151
 •
 X
 X C O 5 (altitude biplane)..... 263
 X-ray investigation of welded joints..... 1471
 jig testing of coal..... 1462
 studies of coal and coke..... 1465
 Y
 YARROW, HAROLD E..... 619
 Yarrow boilers..... 617
 Year Book of the American Engineering Standards Committee..... 1062
 YODER, J. D. Boiler-water conditioning (D)..... 325
 YOUNGER, JOHN. Design on production (D)..... 639
 Z
 Zeolite water softeners..... 857
 Zeppelin airship, safety of..... 115
 Zinc and iron, corrosion of, effect of temperature on liberation of hydrogen gas by..... 1133
 ZUCROW, M. J..... 58
 ZUMBRO, FRANK R..... 1153
 ZWORYKIN, V. K..... 514

61
56
51

63
71
62
65

19
17
62
25
39

57
15

33
58
53
14